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## ORIGINAL COMMUNICATIONS.

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### SOME CRITICAL AND DESULTORY REMARKS ON RECENT LARYNGOLOGICAL AND RHINOLOGICAL LITERATURE.

BY JONATHAN WRIGHT, M.D., BROOKLYN, N. Y.

(Thirteenth Paper, Second Series.)

In some remarks on the operation of frontal sinusitis by Suarez de Mendoza<sup>1</sup> there is a record of a very rare anomaly of these cavities, it having been noted only once before according to the author. The condition was one in which there were two frontal sinuses on each side, one behind the other, and each communicating by a separate infundibulum with the nose. There was a very small communication between these cavities. It may be left to the anatomists to decide as to the posterior cavities being properly frontal sinuses, but from the rather confusing description and the drawings the suspicion arises that these latter were really abnormally developed ethmoidal cells extending into the frontal bone. However that may be, the question arises, and it is a very practical one, whether these abnormal conditions of the accessory sinuses do not render the patients much more liable to chronic inflammation of their mucosæ. If so the surgeon is more apt to encounter them than their anatomical rarity would lead him at first blush to expect. This possibly greater liability of the abnormality of bony landmarks in cases coming for operation is a matter of the greatest importance in a region where the operator is in such dangerous proximity to the base of the cranium. I have lately seen the frontal bone perforated and the dura-mater wounded with disastrous results in a case in which the frontal sinus was lacking on that side. The orbital abscess which was supposed to have its origin in a frontal sinus proved to be in

the anterior and posterior ethmoidal cells. As a part of the responsibility of this case is my own, the question to me seems a particularly practical one. A very useful thesis would be an account of how far abnormalities or deformities of anatomical structure enter into the etiology of accessory sinus disease as a predisposing factor. In the same journal of a later date<sup>2</sup> Furet reports a case of sphenoidal sinus disease in which access was gained to the anterior wall by the resection of the inner wall of the antrum of Highmore and the turbinated bones. Unfortunately the author in his report of the case does not sufficiently detail the symptoms for which this extensive operation was done. I must confess to a feeling of conservative hesitation when it comes to extensive destruction of the bony framework of the internal nose for symptoms which do not urgently threaten the life of the patient. For long continued and profuse suppuration in the bony cavities at the base of the brain, prompt, energetic and radical measures are often plainly indicated, but for the symptoms of nasal obstruction and catarrh I am not inclined to advocate the ruthless destruction of turbinated bones nor the extensive crushing of the bony septum. This I know is frequently done with impunity and the patient escapes with his life, but not always. The human head is not a melon, the internal structure of which may be removed with impunity. As we have already entered upon a campaign of intranasal evisceration, it is well we should keep sharply in mind the limitations within which such extensive laceration is justifiable. It is therefore unfortunate, I think, that the indications for interference should not be more thoroughly discussed *pari passu* with the technique.

Furet says briefly that he would reserve his operation for those cases in which the nasal route does not afford sufficient room and those in which there is also a suppuration of the antrum of Highmore, and where thorough and complete drainage is indispensable, as in cases with cerebral complications. This limits its application to a comparatively few cases. It is therefore to be presumed that the symptoms in his case were urgent. He had at first attempted to treat the sinus through the nasal fossa, but the removal of both middle turbinated bones did not give him sufficient room. After six months occupied in this treatment he opened the healthy maxillary sinus of one side by the supra-alveolar route, scraped away the internal wall into the nasal chambers, destroying the inferior turbinated bone. It will thus be seen that the middle turbinated having been previously removed, the operator had a wide field for operation at the base of the skull. This was done on the left side and the septum separating the two sphenoidal

sinuses being removed by curette and forceps he had access to both. After three weeks of tamponing and douching the patient was relieved of her symptoms, whatever they had been. This operation is, of course, not original with Furet, but has been practiced by Jansen and by Luc. Incidentally here and elsewhere (*Ibid.* No. 1, 1901) Furet refers to the frequency of the maxillary sinus acting simply as a pocket for the purulent discharges of the other sinuses, a most important matter, to which attention was drawn a number of years ago in this country by Dr. Bryan and myself. Turning from this operation to the discussion which lately took place in a session of the Laryngological Society of London<sup>8</sup> one notes the same spirit of ruthless destruction of the internal anatomy of the nose. The same radical spirit was evidenced a few years ago in England in the employment of the "spoke shave" for the ablation of the inferior turbinated bone. This latter operation somewhat differently carried out is finding favor in Germany, Küttner having in a very recent issue of the *Berliner Klin. Wochenschrift* (No. 14, 1901) advocated it in cases of persistent and recurrent hyperplasia of the mucosa of the inferior turbinated bone. The discussion referred to was opened by Dr. Lambert Lack on the treatment of nasal polypi. The position was assumed frankly by some of the participants and tacitly by others that the presence of polypi in the nose *per se* means such disease of the bony structures of the ethmoid as to make the indication for their removal imperative. Some speakers assumed the still more untenable ground first advanced by Woakes that the disease giving rise to the edematous infiltration of the soft parts always begins in the bony structure. Now, however much we may be disposed to admit the very frequent involvement of the bone in the edematous protrusions of the mucosa of the middle turbinated, it would be seeking strange gods to accept the postulate that the primary insult is received by the deep lying bone. Hajek, and MacDonald before him, has clearly stated his belief that the process really begins in the mucosa and this point was brought out in the discussion by Thomson and others. It seems hardly worth while to dwell much upon it here, but, nevertheless, it is the practical salient point upon which the rationale of the proper treatment must rest. If we are to entertain the contrary view are we to presuppose some constitutional dyscrasia in these cases? Is it syphilis or tuberculosis in modern parlance? Or is it scrofula in the ancient tongue of past decades? Or is it bacterial infection? Or is it some process, as hinted by Cordes, similar to osteomalacia? None of these assumptions seem in accord with a rational pathology, nor do they coincide with

clinical observation. On the supposition of a primary bone disease how are we to explain the retrocession of nasal polypi after the pus is drained out of a suppurating antrum through an opening below? We cannot explain thus those rare cases in which polypi spring from other localities, as, for instance, from the nasal septum and the inferior turbinated body. In fact, bone disease has its site in the ethmoidal region, as a rule, because it is in that region especially, it is so near the surface and covered by such a thin layer of superimposed periosteum and mucosa. Destructive rarefying osteitis, without specific cause, is practically unknown elsewhere in the nose. There is one point in the histological diagnosis of this latter condition, to which attention has not been drawn, and that is the difficulty of saying on microscopic examination whether bone disease exists or not. Normally we have very thin lamellæ of bone in many places existing in the mucosa which clothes it on both sides, as separate islands of bony tissue, at the edges of which the osteoblasts and osteoclasts are constantly at work, apparently altering the bony archipelago; and like the coral insects, constantly throwing up new reefs and making new channels through others, a constant slow integration and disintegration of normal structure. Rarefying osteitis in this region might be defined as the disturbance of the normal relations between these two processes, the osteoclasts making inroads upon the mainland of the firmer bony structure and possibly the osteoblasts pushing islands of calcareous deposit farther out into the soft parts, altered as they are in their nutrition by chronic inflammation. Notwithstanding this conception it must have frequently been a puzzle to other observers as well as to myself in studying the histology of this subject to recognize the normal as distinct from the abnormal activities of the tissues. There is no sharp border line between health and disease, either as to biological processes or histological detail, an idea which will be found very carefully elaborated in Bland Sutton's popular book, "Evolution and Disease," first published some ten years ago.

Cordes (*Archiv für Laryngologie*, Heft 2, Band xi, 1900) has lately published a very exhaustive account of these bone changes. His conclusions for the most part corroborate the previous work of Hajek. He obtained much of his material by the resection of a part or of the whole of the middle turbinated bone. He insists very properly on the necessity of examining larger pieces of bone than are usually removed as spicules, which often come away with nasal polypi, in order to study the relationship of diseased conditions in the bone to those in the mucosa. Although agreeing with



Hajek, that the process usually begins in the mucosa, he leans somewhat to the idea of Woakes, that the disease may in some cases begin in the bone. I only again go over this ground, which I reviewed a year ago in connection with Cholewa's paper, because it has a vital bearing on the question under discussion. As I have more than once insisted, the causes of serous effusion in the mucosa are not simple, but various and complex. We are not warranted in disregarding vaso-motor influences having their origin in the central nervous system any more than in ignoring mechanical obstruction to the venous return by morbid processes in the mucosa and the subjacent bone. In the discussion at the London Laryngological Society, Lack referred to those cases of nasal polypi in which there was no apparent bone lesions as instances in which the osteitis had subsided and the soft parts had continued in an edematous condition. This I do not believe. The interpretation of this state of affairs, it seems to me, is that the inflammatory condition of the mucosa has not been transmitted through the periosteum to a sufficient degree to cause disintegration of the bony tissue by rarefying osteitis. It seems to me that the practical conclusions to be drawn from this view of the pathogenesis is that the operator should be sure that an irremediable bone lesion coexists before he proceeds to extirpate the larger part of the intranasal framework of the ethmoid bone. This can often be determined at once by the history, by the extent of the edematous process, the evidence of bare bone, etc. If not, the thorough removal of the soft parts should first be performed, and the indications for a more radical procedure be judged by the subsequent course of the disease. That bone disease frequently coexists with edematous conditions of the mucosa has been established beyond the peradventure of a doubt, but let us not, at least for this once, in the history of modern rhinology, rush to the untenable extreme of believing and acting on the belief that this is always the case.

In the report of a more recent meeting of the London Society (*Journ. of Laryngology*, April, 1901), there may be noted in the remarks of Sir Felix Semon the same query as to the cases in which these extensive operations are justifiable. After all is said, to prove that an operation is feasible is not to demonstrate its justifiability. As Semon remarked, few of these cases altogether come to grief. As post-mortem examination has abundantly shown, foci of suppuration in the accessory sinuses are very common and cerebral abscess therefrom a very great rarity. A large proportion of the cases of sinus suppuration as well as of nasal polypi must undergo spontaneous cure. Even the most sweeping destruction of the eth-

moidal structures not infrequently fails to suppress suppuration and serous infiltration of the mucosa.

As a critical review, therefore, of the tendencies in intranasal surgery leads us to a conservative frame of mind, I may refer briefly to a paper by Lermoyez and Mahu in the July number of the *Annales des Maladies de l'Oreille*, etc., for 1900, upon the employment of hot air in the treatment of acute and chronic engorgements of the nasal mucosa. Lichtwitz, in a more recent issue (April, 1901), makes another contribution to the subject. Heated air is driven by a very simple contrivance against the mucosa and it is claimed by these authors that its dehydrating and constricting effect on the tissues is very efficacious in reducing the vascularity, absorbing the serous effusion, and relieving the various symptoms depending upon these pathological conditions. Although the authors go so far as to urge its efficiency in chronic hyperplasia of the soft parts, it must be confessed it is a little difficult to understand how fibrous tissue, glandular ectasia and vascular dilatation of long standing could be removed by this method. Nevertheless, such a sequence is not absolutely unthinkable as are some of the claims of therapeutic enthusiasts who ask us to lay aside our reason and cling to faith alone. In acute inflammation this process, frequently repeated, we might expect to produce very favorable results, and possibly these applications long continued might so alter the nutrition of the parts as to cause a shrinking of the hyperplastic tissue. Nevertheless, we must keep in mind the physiological law of the reaction which must follow a measure such as this as it does the application of cocaine and of suprarenal extract. The application of dry heat to the skin has lately been very much in vogue and has met with favor in general medicine. Where the capillaries are more abundant and osmosis more free, as in the nasal mucosa, we are certainly warranted in expecting more impression might be made on the morbid activities of the tissues. It is to be hoped the method may be more widely tested.

A more formidable class of cases than those we have been considering is incidentally mentioned by Furet in the paper referred to above. While the operation he describes may be applicable to some of these, the more extensive operations of Partsch<sup>4</sup> and of Loewe<sup>5</sup> will probably be found much more efficacious. For extirpation of neoplasms at the base of the skull, in the nose or naso-pharynx, access to these regions is gained by Loewe by a procedure which consists in cutting through the whole length of the septum, beginning anteriorly under the lip, as in the Rouge operation, and through the internal and external walls of the maxillary sinus on each side.

The floor of the nose may, after this, the author declares, be forced down on to the tongue. The inferior and middle turbinated bones may be removed if necessary, so that a large free field of view and of access is gained from under the upper lip. The growths having been extirpated, the bony floor of the nose and antrum is raised into place. There is thus no ensuing deformity, and, according to the authors, hemorrhage is largely avoided or easily controlled. This procedure, at first glance, seems a formidable one, but, on further reflection, it will seem a more feasible and plausible undertaking. It will not be surprising if it is frequently practiced in the future.

All rhinologists are aware how strongly John N. McKenzie in this country, and Fliess abroad, have insisted upon the reflex connection between certain areas of erectile mucosa in the nose and the sexual apparatus both in men and women. Seiler's assertion that he was able to diagnosticate uterine conditions by laryngoscopic appearances is to be found in the fourth edition of his book on "Diseases of the Throat," but has not met with the same credence. Hobbs (*LARYNGOSCOPE*, March, 1897) claims to have cured two cases of chronic priapism by the insufflation of cocaine in the nose. Joal and many others have noted the occurrence of epistaxis at the time of puberty and from onanism. Vicarious menstruation is not an unfamiliar phenomenon in the nose. I have shown the marked difference in amount between the erectile tissue in the nasal mucosa of a bull and that of the castrated animal (*N. Y. Med. Journ.*, November 19, 1898).

Now, the chief one of these genital areas in the nose of the human race is the tuberculum septi, the middle of the posterior border of the nasal septum and that is almost the sole locality\* in the nose of the herbivora which is supplied with erectile tissue. This being such a review of the subject as occurs to me without especial search of recent laryngological literature, we find a continuation and a marked confirmation of the observations of sexual reflex in connection with the nasal mucosa in the recent paper of Dr. Arthur Schiff.<sup>6</sup> At first not disposed to accept the statements of Fliess and McKenzie as to this relationship he ended a series of investigations by being completely convinced. His observations were made on forty-seven cases carefully selected. There were among these thirty-four who,

\* I draw my conclusions from the examination of the nasal mucosa of oxen and sheep. It is possible the assertion may also hold good for the carnivora, and it may be that in other of the ruminants it is not so. In the ox and sheep there is some vascular tissue along the floor of the nose close to the septum. In guinea pigs and rabbits I have not observed erectile tissue in the nose. The monkey, I would conclude from some sections kindly sent me some years ago by Dr. Shurly, has much the same development of the turbinated bodies as has his cousin man, but that locality is not supplied with any marked angiomatous development in the bovine race.

hysteria excluded, on cocainization of the genital areas in the nose, were relieved of their dysmenorrheal symptoms—not only once but regularly.

Here it may be well to insert a recent observation of Dr. Benno Lewy<sup>7</sup>, to which Fraenkel<sup>8</sup> is perfectly right in calling attention as being a very important matter in nasal histology. Despite the very great attention which has been given clinically to the various nerve phenomena in the nose, singular to say, little or none has been given to the anatomical study of the terminal filaments of the intranasal nerves themselves. Practically it is an unexplored field. In studying in the aggregate a very large number of sections of the nasal mucosa with other problems in view, I have occasionally noted the presence of nerve filaments, but I have never studied nor stained them to differentiate them. From Dr. Lewy's paper it seems his attention was accidentally attracted by the reaction of a saffranin stain in specimens hardened in Flemming's solution.\* The cases from which the specimens were taken were two women with uterine disorders and nervous nasal symptoms, which he believed depended on local changes in the mucosa rather than upon the distant genital irritation. His staining revealed pictures of abundant nerve filaments and nerve bundles amidst the erectile and glandular tissue of the inferior turbinated bodies. Never having had any experience with the normal histological appearances of the nerve distribution he was unable to draw any conclusions as to the pathogenic significance presented by the observations. From his illustrations and descriptions it would seem doubtful if the nerve structures were themselves diseased or abnormally abundant. The value of the paper, therefore, consists largely, if not solely, in the suggestion of this line of investigation as one likely to throw much light upon many reflex phenomena in nasal semeiology. Incidentally Lewy also notes the presence of fat globules in the diseased mucosa, another observation which has hitherto received no attention by writers in this field.

Wrapped up in so many ways with self-consciousness our knowledge of the *modus operandi* of reflex neuroses is largely theoretical. Their frequent manifestation in the organ of smell connects them there with another imperfectly understood physiological function. Reflex neuroses having their apparent origin in the naso-pharynx have not attracted the attention which has been devoted to nasal reflexes. Indeed they are much less common. I may here refer briefly to some notes I have of two such cases, the explosion of the reflex being of an epileptic nature.

\* Since this paper went to the printer I have followed the technique indicated by Lewy in one case of a diseased edematous mucosa of the middle turbinated bone, and though I have, of course, been unable to arrive at any conclusion in the matter, I have been unable to distinguish any nerve fibers or any fat.

*Case I.*—A healthy-looking boy of six or seven, with a nervous mother, but in whose family there was not marked neurotic taint, came to one of my clinics with the history of having had some sort of fainting attack at school. He gave some slight signs of nasal obstruction. I introduced my index finger into his naso-pharynx and a small quantity of adenoids was touched—not scraped. About two minutes later the boy suddenly fell to the floor on his face and had a very slight convulsion. He recovered too quickly for me to note anything definite in regard to the convulsive movement. He was pale but not drowsy after the attack. His mother was advised to have his adenoids removed, but declined, and I did not again see the patient. This case is not, of course, a conclusive one of naso-pharyngeal reflex. More complete evidence is furnished by

*Case II.*—A fifteen-year-old boy with unilateral nasal stenosis from a septal deviation was brought to my office by his Swedish phlegmatic father, who said the mother was nervous, and that this boy did not want to go to school any more. The boy on being questioned said he did not want to study longer because he could not remember or fix his mind on his tasks. He had never fainted or had any fits. On examination with the finger a considerable amount of adenoids was discovered in the naso-pharynx. They were only gently palpated by the finger. Two or three minutes later the boy with a cry pitched forward on his face; there was a light tremor, but in less than a minute he recovered, arose, was a little morose and stupid, and said: "What did you do to me—give me a shock?"

This patient also refused operation and disappeared, under the impression apparently that I had used electricity on him and resenting it very much. It will be noted that this was a typical history of aprosexia, only one or two of which cases I have ever seen.

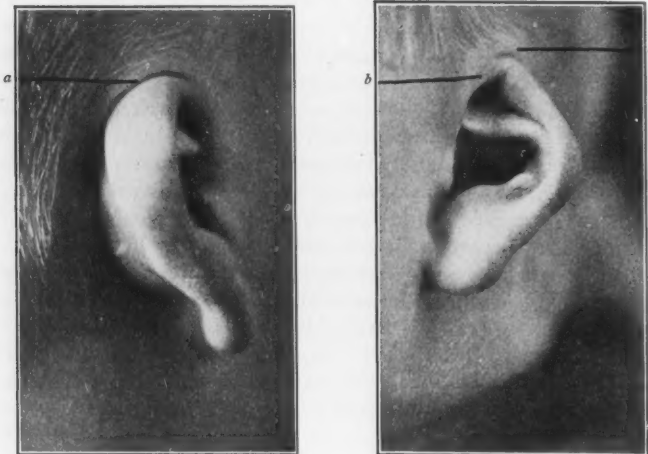
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- <sup>6</sup> *Wiener Klin. Woch.*, No. 3, 1901, p. 58.
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### A CONGENITAL DEFORMITY OF BOTH AURICLES.\*

BY HENRY L. WAGNER, M.D., PH.D., SAN FRANCISCO.

A boy of German parentage, five years old, who was born prematurely by two months, shows an interesting congenital deformity of both auricles. The deformity, equally marked on both sides, consists in the absence of the inner part of the upper helix. The missing part of this cartilage can easily be traced and circumscribed by the touch



a. Incisura helix. b. First hidden cartilage. c. Second hidden cartilage.

of the fingers, lying, as it does, deeply hidden under the skin. We can notice further an "incisura helix," which is produced by a conjunction of the enlarged helix and a second hidden cartilage running parallel to the upper visible helix. The nature of the deformity is clearly shown in the accompanying photograph. Both hidden cartilaginous rudiments are connected by a small bridge apparently of the same structure.

\* Presented at the Seventh Annual Meeting of the American Laryngological, Rhinological and Otological Society, New York, May 23, 1901.

The anti-helix is very much over-developed and runs without forming any crura into an abnormally deep groove. The position of the anti-tragus to the tragus is also considerably altered, though other parts of the ear, such as the external meatus, the tympanum, etc., are normal, as is also the sense of hearing.



a. Incisura helix. b. Hidden cartilage.

According to His, this deformity can be traced to an arrest of development between the second and third fetal month, when the auricles begin to grow away from the head and to take definite shape.

The boy's mental condition shows imperfect development and he is just now beginning to speak, conditions to which Gradenigo has called our attention in cases of deformed auricles.

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## AUSCULTATION OF THE MASTOID.\*

BY ALBERT H. ANDREWS, M.D., CHICAGO.

The use of the tuning-fork and stethoscope as an aid in the diagnosis of conditions within the mastoid process, and in determining the relation of the mastoid to the cranial cavity, is, so far as I have been able to learn, a new method of examination. My experience in the examination of twenty-six diseased mastoids and of about two hundred apparently normal mastoids, together with the statements of a number of my confreres who have experimented with this method since my first publication on the subject, lead me to the belief that it will be found a valuable aid in the diagnosis and treatment of mastoid diseases.

The test for the density of the mastoid is made by placing a stethoscope with a small bell over the tip and placing the handle of a vibrating tuning-fork against the mastoid in the neighborhood of the antrum. It is found that when the mastoid cells are filled with pus or granulations, or when the density is increased from bone proliferation, the sound waves are transmitted to the ears of the examiner with greater intensity and for a longer time than when the stethoscope and tuning-fork are placed in the same relative position over the opposite or a normal mastoid.

In making the test no traction should be made upon the soft tissues, for if the skin is stretched or if it is pinched between the stethoscope and the handle of the fork the sound will be unduly increased.

The stethoscope I have used has flexible tubes and a metal bell five-eighths of an inch in diameter. The fork which has given the best results is the C<sup>2</sup>, 512.

In the examination of the two hundred mastoids in which there was no history of disease the following results were obtained:

1. The length of time which I could hear the fork over apparently normal mastoids varied from fifteen to twenty-two seconds.

Considering the fact that there is much variation in the density of different normal mastoids, and also considerable variation in the amount of soft tissue covering the bone, it is not surprising that this range of duration should be noted.

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\* Read before the Western Ophthalmologic and Oto-Laryngologic Association, Cincinnati, April 11, 1901.

2. The average length of time the fork could be heard was about eighteen seconds.

3. The length of time the patient could hear the fork by bone conduction was, as a rule, slightly less than the time I could hear it with the stethoscope, *i. e.*, bone conduction was slightly less than auscultation.

It is not expected that other otologists will necessarily secure the same results in examining normal mastoids that I have. There are a number of conditions entirely independent of the mastoid itself that may influence the result.

1. If the conducting properties of the stethoscope are greater than the conducting properties of the one I have used the difference between bone conduction and auscultation will be increased, while if the conducting properties of the stethoscope should happen to be less than the conducting properties of my instrument the relation between bone conduction and auscultation may be reversed.

2. Tuning-forks vary greatly in the time they can be heard by the normal ear.

In order that the physician may compare the auscultation of a suspected mastoid with that of the average normal mastoid he should first make a sufficient number of examinations with a given fork and a given stethoscope to establish a standard for himself.

In operating upon the mastoid its anatomical relation to the cranial cavity becomes a matter of considerable importance. The upper border of the mastoid forms a part of the floor of the middle fossa, while the posterior border of the mastoid forms the wall of the cranial cavity adjacent to the lateral sinus. Many experiments have been made in the past in order to determine, if possible, some rule regarding the anatomical relation of these parts, but the best that has been accomplished thus far refers only to averages and general indications. By means of the stethoscope and tuning-fork the floor of the middle fossa can be located and the width of the mastoid, *i. e.*, the distance from the external auditory canal backward to the lateral sinus can be very accurately determined in each individual case. When it comes to operating, averages and general indications are of little value; it is definite information that is wanted. To locate the floor of the middle fossa the bell of the stethoscope is placed upon the lower part of the mastoid and the handle of the vibrating tuning-fork is moved downward over the squama. As soon as the upper border of the mastoid is reached a decided increase in the sound of the fork will be noted. The lateral sinus is located in the same manner, except that the stethoscope is crowded close to the attach-

ment of the auricle and the tuning-fork is carried from behind forward until the increase in sound is noted when the fork reaches the posterior border of the mastoid. In two recent operations the lateral sinus and the floor of the middle fossa, as indicated by this method of examination, were found to have been correctly determined.

The principles underlying this method of examination, and upon which the conclusions have been based, are:

1. The greater the density of the medium the greater will be its sound-conducting property.
2. The more nearly uniform the medium the greater will be its sound-conducting property.
3. Solid media of the same density transmit sound waves, within certain limitations, in proportion to their relative thickness.

A condensed report of a few cases will suffice to show the results which are obtained by auscultation:

*Case I.*—Mrs. S., colored, aged forty, gave a history of suppuration of the left ear for fifteen years, with occasional attacks of acute pain in the ear and side of the head. For three weeks before coming to the clinic she suffered continuously from a dull pain in the ear and mastoid, which sometimes extended over the side of the head as far forward as the eye. Examination showed complete loss of the membrana tensa. Deep pressure over the mastoid caused pain. In testing the comparative resonance of the two mastoids I found that when the bell of the stethoscope was placed on the tip of the mastoid with the handle of the tuning-fork over the antrum the resonance of the left side was much greater than that of the right. The time which I could hear the fork on the affected side was thirty seconds, and on the normal side was sixteen seconds.

A mastoid operation was done December 30. The usual post-auricular incision was made, and the mastoid cortex found to be of ordinary density. The air cells were small and filled with granulations.

*Case II.*—Mrs. L., aged twenty-nine, was brought to my office for examination by Dr. Joseph Beck, March 25. The history was that of acute suppurative otitis media of the left ear with beginning mastoid symptoms. The fork could be heard on the affected mastoid about twenty-five seconds. Two days later the same fork could be heard about thirty-five seconds. The symptoms continued to increase in severity and Dr. Beck operated March 29. He reports finding the mastoid cells filled with granulations and considerable pus in the antrum.

*Case III.*—P. N., aged four, when first seen had an ordinary acute left suppurative otitis media. The fork could be heard over

both mastoids eighteen seconds. After a few days mastoid symptoms developed and the time the fork could be heard over the affected side increased first to twenty-five seconds, later to thirty seconds. Then the mastoid symptoms began to disappear and the resonance of the mastoid gradually returned to normal.

*Case IV.*—Mr. S., aged forty-two, examined with Dr. W. O. Nance. The patient gave a history of right suppurative otitis media for three months. A superficial abscess had been opened behind the mastoid. Auscultation gave: Left ear eighteen seconds, right ear twenty-eight seconds. The case was operated upon by Dr. C. L. Ensley at the Illinois Charitable Eye and Ear Infirmary, who reports the mastoid cells completely filled with pus and granulations.

*Case V.*—A. C., aged five, with a history of chronic suppuration of the left ear for two years, following scarlet fever. Examination revealed a small mass of granulations in the posterior wall of the auditory canal just external to the attachment of the drum membrane. This mass proved to be the opening of a sinus leading back into the mastoid. Auscultation showed normal resonance on both sides—about eighteen seconds. In operating, the mastoid cells proper were found free from any indication of disease, but considerable dead bone was removed from about the antrum.

The above cases are cited, not to show that auscultation assisted in the diagnosis or that it aided in determining the necessity for operation in these individual cases, but to show that the results obtained by auscultation are a reliable index to conditions within the mastoid and to show that this method of examination can be made to give us valuable aid in the diagnosis of cases that would otherwise be obscure.

I have no thought that auscultation will take the place of any of the other methods of examination. In some of the cases the symptoms of mastoid disease are so well defined and the indication for operation so clear that no additional aid in diagnosis is necessary. In other cases the local symptoms do not seem to indicate sufficient disease of the mastoid to account for the general symptoms and constitutional disturbance. It is in these cases that the surgeon's responsibility is greatest. He knows that the welfare, and perhaps the life of the patient depends upon his proper management of the case. It is then that any method of examination which will give him additional evidence as to the conditions within the mastoid may become of inestimable value.

## THE IMPORTANCE OF PREVENTING CHRONIC SUPPURATING ETHMOIDITIS BY PROMPT LOCAL TREATMENT.\*

BY CLARENCE C. RICE, M.D., NEW YORK.

Chronic suppurating ethmoiditis is a condition serious enough to destroy success, happiness, comfort and even the life itself of its unfortunate possessor.

The judicious treatment of this disease is more troublesome to the rhinologist than is that of almost any other of the many nasal affections. The responsibility involved in the cure of this class of patients is particularly great because of the hope constantly entertained by both patient and physician that since the disease is possibly curable, the remedy must be found to control it. These patients wander about from one nasal surgeon to another with a desire for nothing else than relief, and submit to operation after operation. In some cases the middle turbinated bone has been partly taken away; in others it has been entirely removed, but the flow of pus, the pains in the head and the nasal obstruction are still present, and the mental condition of the patient is deplorable. The third or fourth nasal surgeon, who with his probe finds uncovered bone, when almost the entire middle turbinated has been removed, is in doubt as to what course of treatment is left for him to pursue. He fears that the removal of more bone will leave a surface which can never be covered by soft tissue, and that it will be most difficult to stop the purulent discharge. The patient in this late stage of suppurating ethmoiditis, with this uneven discharge of pus, the headache and mental depression, suffers greater discomfort than in the earlier stages when the annoyance is not much greater than that usually accompanying a severe coryza. It cannot be too strongly asserted that there are few conditions more difficult to endure than that of a persistent suppurating ethmoiditis after the middle turbinated has been partly or wholly destroyed.

Nothing should appeal more strongly to the rhinologist than the importance both of preventing and eradicating at the earliest possible moment, those conditions which are competent to convert a subacute inflammation involving the middle turbinated region into a chronic process. Again, it is the duty of the rhinologist to use at all times in his daily practice the best judgment in the treatment of

\* Read before the Laryngological Section, New York Academy of Medicine, April 24, 1901.

all nasal conditions so that no infectious influences may be exerted in the nostrils following any surgical or therapeutic procedure, which may result in a suppurating condition of the ethmoidal cells.

In order to explain more definitely the purpose of this paper, we would say that we believe in the first place it is possible to produce a chronic suppurating ethmoiditis, and that this condition has frequently been caused by ill-advised nasal operations, or by operative work improperly performed, and even by simple medicinal treatment of the nasal passages, which has been of too irritating a character.

Our second proposition (and this perhaps should have been stated first) is that there are certain nasal pathological conditions, some of them commencing in early life, which furnish the predisposing influences to a suppurating ethmoiditis, and that the presence of these should be promptly appreciated and judiciously controlled.

But what are the nasal conditions which if left uncured furnish the predisposing soil to an acute and later to a chronic suppurating ethmoiditis?

In a general way we may say that anything that produces congestion and inflammation of the middle turbinated region, which produces tissue thickening primarily, and eventually enlargement of the entire structure of the middle turbinated is competent to furnish such predisposition. It is more difficult perhaps to preserve the normal integrity of the middle turbinated bone than of any other single structure of the nose. It shares in the universal congestion of an hypertrophic catarrhal process—constantly undergoing changes which may involve the ethmoidal cells themselves—while in an atrophic condition the middle turbinated alone, in opposition to the kind of change going on about it, becomes so enlarged as to reach and frequently to push the septum away from the median line. Why the middle turbinated alone should become enlarged, with a condition of shrinkage all about it, is difficult to accurately state, and we will not enter into the reasons at this time. It serves the purpose of this paper to say that the middle turbinated region, and hence the ethmoidal cells, are more prone to pathological changes than any other part of the nose, and therefore require closer observation and more judicious care.

Before this section of specialists it is not necessary to mention either the nasal conditions which predispose to ethmoidal disease or to indicate their treatment, but only to say that the family physician should be warned of the danger of the production of suppurating affections of the sinuses from neglected or badly treated nasal dis-

eases. Mouth-breathing children with nasal passages filled with muco-purulent secretions, and the posterior pharynx blocked with lymphoid tissue are receiving more attention than formerly, but the neglected ones are still common enough. This condition is a fruitful source of ethmoidal suppuration.

Ill-advised nasal washings and applications after adenoids have been removed, frequently increase rather than allay the congestion and irritation; and the nasal passages, overwashed with improper solutions, are never allowed to recover their normal condition, and the middle turbinated region undergoes *permanent* pathological change, and some extra source of infection finally involves the ethmoidal cells. How much good could be accomplished if the interminable nasal washings could cease for a short time only, and the irritated mucous membrane be allowed to recover itself under protection of a sedative, cleanly powder.

We would suggest, too, that infinite harm is constantly done by the over-use of sprays and washes in the first days of acute coryza, and that colds of short duration are often changed into purulent catarrhs by irritating local treatment. If it is true that too much can be done in such cases, it is equally true that too little attention is paid to the purulent catarrhs of children which, when neglected leave the anterior nasal tissues atrophied, dry and granular, and so remove all natural protection from the middle turbinated region; and this passes into the stages of congestion and hypertrophy. The normal relation between the middle turbinated covering and the ethmoidal cells becomes disturbed, and a catarrhal and oftentimes a suppurating process is started within the cells themselves. We have long felt that the pathological changes in the middle turbinated bone (which is so readily affected by adverse influences) could be controlled in a way to prevent the ill effects of the abnormal pressure which the enlarged bone when wedged against the septum exerts upon the cells behind it. We can follow step by step the ordinary pathological changes of a catarrhal process, which takes place in all the tissues from the mucous covering to the turbinated bone itself; but who can determine what effect upon the ethmoidal cells is exerted by so simple a factor as the increased or decreased pressure caused by a middle turbinated bone which daily changes in its volume and density? Such variable pressure must keep the ethmoidal region constantly in a condition akin to inflammation. Enlargement of the middle turbinated may also at any time close the ethmoidal openings and so create serious disturbance.

While meddlesome attacks upon the middle turbinated bone are



strongly to be deprecated, we think it often judicious to cut away so much of it as will prevent pressure on itself by contact with the septum. There certainly should always be a ventilating space between these tissues. Cessation of this pressure will frequently prevent further enlargement of the middle turbinated and greatly lessen the frequency of *ethmoidal* disease.

We cannot speak too strongly of the negligence of the person who does not consult a specialist until the nostrils become filled with polypi, for no condition tends more surely to cause a suppurating ethmoiditis than such inflammatory thickening of the middle turbinated.

There is not time to describe more fully all the neglected nasal conditions which are competent to produce chronic ethmoidal disease. We shall be on the right side if all pathological conditions are kept in abeyance by judicious treatment.

There is another aspect of the subject which may be considered for a moment. We believe that chronic suppuration of the ethmoidal region has not infrequently been produced by badly-performed surgical work in the nasal passages: least frequently by destructive agents applied to the inferior turbinated bone, more frequently by work upon the septum, and most frequently by injudicious destruction of the middle turbinated bone. This is a difficult region to treat in anything like an antiseptic way. It is almost impossible to secure ample drainage: Many times operations are commenced upon the middle turbinated without any definite plan, and a portion of its anterior face is broken into. A wounded surface which is completely exposed to infection is left, and nothing has been accomplished in the way of thorough removal of the bone. The operator commences with the purpose of removing a portion of the bone or of opening into the ethmoidal cells; but the difficulty of the work compels him to desist before the object is attained, and he leaves a condition which is most favorable for the production of suppurative ethmoiditis. This procedure of destroying the middle turbinated is followed often, we are sorry to say, when there are no special symptoms of trouble referable to it. The examiner finds only that the bone is too large—or perhaps we should say—larger than he thinks it ought to be. Who shall say that a certain degree of enlargement of the middle turbinated when all the tissues anterior to it are atrophied, is not Nature's compensative method of protection? The middle turbinated bone is constantly mangled without definite object, and with most injurious results. There is more excuse for operating in this region when there is an acute ethmoiditis, or

where there have been several acute attacks, but we know of no better treatment for acute ethmoiditis, if the desire be to save our patient from that most distressing condition of chronic suppuration than to exercise the greatest conservatism in the local nasal treatment during an acute attack. External cold applications, bleeding the bone by superficial scarification, protection with a sedative nasal powder, and the administration of such remedies as will lessen congestion and fever, are far safer than deep cutting into the middle turbinated, which is likely to increase the inflammation and may end in a suppurative process.

It is hardly necessary to say that *all* surgical work about the middle turbinated should be as cleanly as possible. No work should be attempted unless the wound can be kept clean and drainage secured. We greatly deprecate the use of the galvano-cautery on the middle turbinated bone. It perhaps remains to be said that all uncleanly, unscientific surgical work upon the septum—work which leaves different tissues crowded together, so that there is no adequate drainage—is dangerous, not because of the transient septic symptoms which may follow, but because this sepsis may be carried into the sinuses and cause chronic suppurative disease. Even the persistent use of irritating nasal sprays may cause acute ethmoidal inflammation, and it requires but little infection to convert this into a chronic process.

The entire purpose of this paper can be stated in two words: First, no nasal disease should be allowed to progress far enough to produce obstruction, deficient drainage, the close contact of the tissues and the retention of muco-purulent secretions, because in these conditions there exists great danger of extension of disease to the sinuses, and especially to the ethmoid, and second, all surgical procedures in the nose should be carefully and cleanly performed that no resulting infection can produce a chronic suppurating ethmoiditis.

123 East Nineteenth Street.

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## REPORT OF AN INTUBATION, WITH COMPLICATIONS.\*

BY JOSEPH MULLEN, M.D., HOUSTON, TEXAS.

I saw A. G., white, aged two years, December 13th. Diagnosis, diphtheritic laryngitis. Intubation was performed the same night. It was easy and natural in every respect. Only 3,000 units of antitoxine were administered during the course of the attack. Five days after intubation, extubation was attempted without being able to remove the tube. It was found that, with the effort of extraction, the intubation tube, larynx and base of the tongue were lifted up into the fauces. Six attempts were made, at intervals of a week apart, with the same inability to extubate. In all these efforts strong downward pressure was made with the index finger of the left hand to counteract the upward lifting of the extractor. Efforts directed to peeling off of the tube from the larynx were likewise futile. For three weeks after recovering from the attack of diphtheritic laryngitis, the child ran around the garden and sidewalk without any apparent inconvenience in breathing. On January 24th, six weeks after intubation, it became imperative to remove the tube as the little patient showed symptoms of la grippe. Hence the crico-thyroid membrane was opened. Inspection of the larynx failed to show the tube. The operation was converted into a laryngo-tracheotomy, and still no tube to be seen. With reflected light, however, a long, round ridge of granulation tissue was seen extending upwards into the larynx and downwards into the trachea. This mass, after being picked and scraped away, disclosed the gold-plated tube, black as vulcanized rubber. After sufficient of this tissue had been removed, the tube was grasped with forceps and pushed up through the larynx into the mouth with the index and middle fingers of the left hand pressing down upon the larynx, practically stripping it from the tube. Six hours after the laryngo-tracheotomy the child developed a catarrhal pneumonia from which she made a slow recovery. At present her voice is very much impaired in tone and volume, but is gradually returning to normal.

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\* Read before the Texas State Medical Association, Galveston, Texas, April 24, 1901.

## ATROPHIC LARYNGITIS.\*

BY B. TAUBER, M.D., CINCINNATI, O.

I do not intend to enumerate all the cases reported since 1861, nor describe the pathological process. This atrophic degeneration is a gradual wasting away of the different layers of the mucous membrane, and the conversion of their individual elements into fibrous connective tissue. The crusts are composed of degenerated, fatty epithelium, muco-pus cells, and detritus.

During my twenty-five years of practice on diseases of the upper air-passages in this city, a great many cases of atrophic pharyngitis, rhinitis and posterior-nasal inflammation came under my care, and I call your attention to one "*unique*" case of atrophic laryngitis, which I have treated ten years ago, in Denver, Colo.

In the text-books and literature on laryngology and rhinology, we find a great many cases reported under different headings, as atrophic rhinitis, pharyngitis, laryngitis sicca, ozena atrophica and ozena trachealis.

Most of the observers believe that the atrophy is a catarrhalic inflammation of the nose, pharynx and posterior nasal space, a morbid condition of the mucous membrane with diminished secretions of the glandular tissues; they become destroyed, dry up into scabs, and adhere tenaciously to the mucous membrane; sometimes they pass upwards and downwards to the arytenoid commissure into the larynx and trachea.

Woacks<sup>1</sup> says the atrophy is due to a vaso-motor neurosis of the superior cervical ganglia of the sympathetic nerve; by the inherent defect it becomes the part of least resistance, hence a mal-nutrition takes place.

Mullhall<sup>2</sup> reports a case of "*laryngeal hiemalis*," or winter laryngitis, in which the crusts cling to the surfaces of the vocal bands, to the arytenoid cartilages into the commissure, and accompanied by aphonia.

In the majority of cases we find generally the atrophy present in the nasal cavities, anterior and posterior, in the pharynx, soft palate and uvula; seldom the atrophy attacks the interior of the larynx; in my typical case these crusts were principally located in the "interior of the larynx."

\* Read before the Western Ophthalmologic and Oto-Laryngologic Association.

Let me give you now a short history of the Colorado case. Miss W. S., of Louisville, Colo., altitude 6000 feet above the sea level, eighteen years old, well nourished, enjoyed heretofore good health, was not predisposed to colds in the nose or throat, consulted me in Denver, Colo., on July 1, 1891. She complained about three weeks ago of a distressing dryness with great difficulty to clear her throat, accompanied by a harassing cough, slight dyspnea and nausea, no fetor from the nose or mouth, and a complete loss of voice.

The anterior and posterior rhinoscopic picture presented in both nasal spaces, the nasal folds, septum and turbinated bones in a hypertrophic condition, as also in the posterior vault of the pharynx.

Laryngoscopically, found in the anterior portion of the epiglottis "*the petiolus*," the ventricles of the larynx, the ventricular bands, and the two vocal bands anteriorly, covered with a black-looking mass, like a "cast," extending downwards to the glottic region into the second and third rings of the trachea.

It was not an easy task to remove these incrustations from their positions, they reappeared each day after being removed for twenty consecutive days, and when removed a sub-acute laryngitis was present, the vocal bands were swollen, reddened, eroded, streaked with muco-pus and blood, and on phonation a complete aphonia, with a paresis of the tensor muscles.

On the twenty-first day the masses disappeared "*in toto*" from the *entire interior of the larynx*; at the same time treated also the hypertrophic condition of the nose and throat.

The local applications in the larynx were made by sprays of a solution of bicarbonate of soda, boric acid and diluted hydrozone, and nebulizations of oily camphor-menthol, to increase the nutrition of the mucous membrane and glands, ordered warm inhalations of terebine by the steam atomizer, and injected occasionally ol. eucalyptus in lavolin into the trachea.

The crusts from the larynx were removed with slender curved laryngeal forceps and probangs, applied mild astringent solutions, also insufflations of powdered iodol, boric acid, nosophen, and, lastly, the alternating electric and galvanic currents, to the vocal bands.

Ten days after the disappearance of the atrophic masses from the larynx the patient was advised to return to her home with instructions to keep up regularly a thorough cleansing of the upper air-passages with antiseptic and alkaline sprays.

In July, 1893, the patient called again for examination. There were no signs of atrophy in the larynx, the hypertrophic condition

of the anterior and posterior nares in good condition, the vocal bands approximated nicely, no hoarseness, and her voice normal.

Generally, the atrophic condition in the air-passages is of a chronic nature, with little tendency to radical improvement except under a very long continued local treatment of the entire air-tract.

In the majority of cases, the disease is "local" in character; however, I placed her under constitutional treatment for two years, changing the remedies every six months, as strychnia, phosphide of zinc and iron, iodide of sodium and arsenic; also made hypodermic injections of  $\frac{1}{80}$  of a grain of pilocarpin; from the latter I have not observed any good effects.

As catarrhal diseases do not always extend by continuity of tissue from the naso-pharynx to the larynx, I consider this case to be "unique," because "atrophy" was present in the larynx proper, and "hypertrophy" in the nasal passages; the moist current of air from the nasal passages and vault of the pharynx should have prevented the atrophy in the larynx, and had to treat two different conditions in the larynx and nose.

The winter laryngitis, caused by the inhalations of excessive cold air, cannot apply to my patient, as she contracted the disease during the hottest weather in June. I think this exclusive atrophy in the larynx was caused either by a local inflammatory condition in that locality, accelerated by breathing dry air in a very high altitude, or to some atmospheric and metrological changes in the soil.

No. 213 W. Ninth Street.

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<sup>1</sup> *Centralblatt der Laryngologie und Rhinologie.*

<sup>2</sup> *Journal of Laryngology, Rhinology and Otology.*

## SOCIETY PROCEEDINGS.

### NEW YORK ACADEMY OF MEDICINE.

#### SECTION ON LARYNGOLOGY AND RHINOLOGY.

Stated Meeting, April 24, 1901.

W. K. SIMPSON, M.D., Chairman.

#### Sublingual Calculus.

DR. M. D. LEDERMAN presented this specimen, which had been taken from a young man who had come to his office about two weeks ago complaining of difficulty in speech and with swelling of the sublingual and submaxillary glands and tenderness on pressure. According to the history there had been a similar attack about two years ago, and he had expectorated some hard material after having some acid applied. On inspection, there was a small fistula to the left of the raphe of the tongue, and the probe detected some gritty substance. An incision about one inch long was made on a director, and with some manipulation with a spoon curette he had been able to remove this specimen and evacuate about two drachms of pus. The probe had then been passed about three-quarters of an inch into Wharton's duct. Inasmuch as both glands were involved he came to the conclusion that the sublingual duct and the duct of Wharton had both been closed by the stone. There was a family history of gravel. The swelling had been more particularly underneath the tip of the tongue. Dr. Lederman thought if these cases were left alone for any length of time they would be apt to lead to a suppurative cellulitis of the neck. He recalled a case that had followed this course from infection of the gland, after a suppurative otitis. Prompt incision along the floor of the mouth avoided an external operation.

DR. T. R. CHAMBERS said that three days ago a man had come to him with a swelling under the tongue, and pressure on the duct had caused the appearance of some mucoid material. He had then been able to remove a stone about as large as the tip of his finger, doing it under cocaine anesthesia. There was no pus. The man made an uneventful recovery.



**Inferior Turbinal Blown from the Nose.**

DR. FRANCIS J. QUINLAN presented an inferior turbinal body from a boy of fifteen years. Examination had shown an area of dead bone and some occlusion, and the probe had detected a rough, hard body. Operation had been deferred, and in the meanwhile the boy had ejected this piece of bone while blowing his nose. There had been absolutely no lymphadenitis and the boy had been free from even the diseases of childhood.

Dr. Quinlan also referred to a case, seen at the New York Polyclinic, in which there had been an erosion under the bicuspid tooth extending along the hard palate. The man had been seen at one of the large institutions fifteen months ago, and a diagnosis had been made of carbuncle of the palate. The mass had discharged some material not exactly the character of pus, but rather like the contents of a cyst. On inspection, there was found a considerable area of bare bone, and he appeared to be suffering from pyorrhea alveolaris as well. The case was interesting because on the first sight one would have thought it to be specific in its nature.

DR. MEIERHOF thought this was purely a local condition, due to suppuration in the cavity of the tooth. The man had probably had a periostitis of the palate and a cystic formation, which had ruptured. He did not think these cases were especially uncommon. Very mild forms of pyorrhea alveolaris were present in many mouths and the secretion from this was often the cause of neighboring infections.

**A Pocket Sterilizer and Instrument Case.**

DR. W. P. HERRICK exhibited a pocket sterilizer that he had devised. It consists of a metallic box containing a compact alcohol lamp and a wire instrument tray.

**A Case of Pachydermia of the Larynx.**

DR. WOLFF FREUDENTHAL presented a man, forty-two years of age, who had been well up to ten months ago. At that time he had begun to suffer from pain in the throat and huskiness of the voice. He had been treated in Albany for the ulceration, and had then been advised to go to Denver. On his way there he had been treated for a few weeks in Chicago by a competent laryngologist. The latter had not found any ulceration or other evidence of tuberculosis, and had dissuaded the patient from going to Denver. Examination showed the vocal cords somewhat thickened, and the arytenoids slightly edematous. There was a small defect on the right vocal cord into which fitted the other arytenoid. On the other vocal band

was a small cicatrization. The man had received iodide for eight weeks without any benefit, and there was no breaking down of the tissue. The process had gone on for ten months, but its acute onset seemed to exclude tuberculosis. Examination of the lungs and of the septum had been negative. Further inquiry had elicited the fact that for at least ten years there had been more or less huskiness and a chronic laryngitis. Although the case did not present the classical features of pachydermia he would make this diagnosis by exclusion. The man objected to the snaring off of a portion for examination.

DR. QUINLAN said that the case seemed to be a form of the arytenoid laryngitis with a new growth or possibly tubercular invasion. A microscopical examination would prove very important in this case.

DR. M. D. LEDERMAN said that the cases of pachydermia laryngis that he had seen had all occurred in Russians or Poles, and the picture presented by the case under discussion was not that which he had seen in these other cases. It was possible that a tubercular process might exist without bacilli being present.

DR. MEIERHOF did not see how it was possible to consider this a tuberculous process. The general appearance of the patient and of the mucous membrane seemed to him to preclude the idea that the process was tubercular. The mucous membrane did not even exhibit the appearance observed in the pretubercular condition of the larynx. There was at present evidently some disease of the perichondrium, and this would account for the edema. He would not entirely exclude syphilis.

DR. FREUDENTHAL said that from his knowledge of the man it seemed to him very improbable that there had been an opportunity for syphilitic infection. The coloring of the mucous membrane seemed to him to exclude tuberculosis. He could not imagine the possibility of anything else in this case but a *primary* tuberculosis, and if it were primary there should certainly have been some lesions of the lungs by this time.

#### Dentigerous Cyst.

DR. A. B. DUEL presented a young man who, while skating two years ago, had fallen and broken two teeth. Nothing more had been thought of it until about one month ago when, on endeavoring to have a set of artificial teeth put in, a swelling had been found. Because of this he had sought advice at the Manhattan Eye and Ear Hospital. Examination had shown an apparently fluctuating cystic tumor included in thin bony walls, and of a non-inflammatory type.

It was apparently not connected with the antrum. Transillumination showed the affected side to be fully as clear as the other. The case was evidently one of dentigerous cyst.

**Supplementary Report on a Case of Hodgkin's Disease.**

DR. FRANCIS J. QUINLAN said that a few weeks ago he had presented a case of Hodgkin's disease which had elicited considerable discussion. Within the past three weeks there had been a gradual increase in the neck, arms and inguinal region. He had hoped to present the boy again, but the child was at the moment in a dying condition in the hospital. Careful examinations from time to time had excluded retropharyngeal abscess and had fully confirmed the diagnosis previously given, viz., Hodgkin's disease.

**The Importance of Preventing Suppurating Ethmoid Disease by Prompt Local Treatment.**

DR. CLARENCE C. RICE read this paper. This paper is published complete in the June, 1901, issue of THE LARYNGOSCOPE; page 419.

DR. FREUDENTHAL said that chronic ethmoiditis was often produced by treating acute coryzas. After the removal of the adenoids he preferred to send the patient to the country for a few months. This prevented the recurrence of the adenoids, and also ethmoiditis.

DR. QUINLAN said that the paper must serve a useful purpose in emphasizing the necessity for removing the causes of disease in the nose. The entire contour of the septum should be slowly and carefully mapped out, and the points of contact noted and corrected if one would avert the various pathological changes. When the middle turbinal touches the septum one should never hesitate at once to secure the necessary ventilation and drainage of the accessory sinuses for, if the tissues were allowed to remain collapsed against this perpendicular partition, a vicious circle would be established, and the lymphoid tissue in the rhino-pharynx would soon present serious pathological conditions.

DR. M. D. LEDERMAN said that some years ago he had learned that the mucous membrane of the nose should be prepared for surgical work just as one prepares the general system for surgical operations. When such preparatory treatment was carried out there would be much less reaction, less secretion and less discomfort. As to the extensive destruction of the middle turbinate, when this was done there would be a formation of crusts, and infection was apt to arise from this cause. Dr. Delavan had suggested submucoid incision along the turbinate to relieve congestion, and this suggestion seemed to him an excellent one.

DR. RICE, in closing, said that the tendency was to give too little importance to the adenoid operation, and hence the suggestion about sending these patients to the country was a good one. He had been impressed with the number of cases of disused nostrils in adults, possibly as a result of adenoids in childhood. The nostril was in a perfectly quiescent condition, not even showing excessive secretion. This indicated that parts might be in contact without giving rise to symptoms. Of course, such cases were exceptional. Preparatory treatment of the mucous membrane was desirable, but he thought more could be accomplished by antiseptic dressings after than before operation. He favored the persistent use of powders for the first forty-eight hours after operations in preference to the older method of persistently washing the nasal passages. The sealing over of the wound by a powder was an excellent safeguard against sepsis.

#### Nasal Condition Observed in the Aged.

DR. BEAMAN DOUGLASS read a paper with this title. It was based on observations made in persons over forty-five years of age. The majority of the patients were from the middle walks of life. In his experience, patients rarely sought relief from nasal and pharyngeal disorders after the age of fifty; the majority of them come between the ages of sixteen and forty. The explanation seemed to be that the pathological conditions present give rise to fewer symptoms in later life. He had found no diminution in the sense of smell even after those of sight and hearing had begun to be impaired. Five cases were reported in detail to show that although chronic pathological conditions exist there had been an almost complete absence of the usual symptoms. This state appeared to exist only in the aged. Hypertrophic conditions were present without symptoms of nasal catarrh, and as it seemed possible to exclude outside causes one was forced to the conclusion that they might have resulted from blood conditions. This was not unreasonable if one recalled the fact that extensive cirrhosis of the liver may occur without giving rise to symptoms. The slowness of the process explained the absence of symptoms of inflammation. If the blood circulation were fairly active in the nose, and yet was pathological as regards the salts held in solution, some obstruction in the lymphatic circulation might leave these in the tissues and give rise to increase of connective tissue without producing special symptoms.

DR. MEIERHOF said that one inference from this paper was that a good deal of useless work had been done in the nose. It had occurred to him ten years ago that it was strange that older people formed such a small percentage of the patients coming to the rhinologist. His explanation was that less attention is paid to such symptoms as were present in this class of patients.

DR. D. BRYSON DELAVAN thought the changes which take place in the general circulation with advancing years would explain some of the observations made with regard to nasal conditions in the aged. In early life, the circulation being at its maximum, occlusion was more apt to take place than in the aged.

DR. QUINLAN said that the rhinologist did not see one-third of the people who have obstructive conditions in the nose. Unless there was some direct interference with the special senses or a great deal of discomfort many individuals would not seek the specialist, and it was certainly true that as age advances persons become reconciled to many of the ills of life. Moreover, in later life a peculiar atrophy occurs, thereby diminishing the effects of nasal occlusion or its attendant symptoms.

## LARYNGOLOGICAL SOCIETY OF LONDON.

SIXTY-FIFTH ORDINARY MEETING, APRIL 12, 1901.

E. CRESSWELL BABER, M.B., President, in the Chair.

The following cases and specimens were shown:

### **Case of Tumor of Right Vocal Cord with a Swelling on the Leg in a Boy.**

Shown by MR. SPENCER. Shown at last meeting. Since then the patient had taken 15 grs. of iodide of potassium daily, and Ung. Hydrargyri had been applied to the leg every night.

Swellings had largely subsided, tending to show that both had origin from the same cause, namely, inherited syphilis.

### **Man æt. Thirty-three with Chronic Laryngitis and an Ulcer on One Vocal Cord.**

Shown by DR. STCLAIR THOMSON. Patient presented himself for hoarseness, and a constant desire to clear the throat, which had commenced about six months ago. When first examined there was general subacute laryngitis, cords were congested, irregularly thickened and rounded. On anterior third of the left vocal cord there was an oval, boat-shaped ulcer, covered with a greyish slough. A thickening on the opposite cord appeared to fit into this ulcerated depression on phonation.

His temperature was 98.8°, pulse 86; there were no symptoms suggestive of tuberculosis, and nothing was found in his chest. There was no definite history of lues, but he was put on 10 grs. of iodide of potassium three times a day. On a subsequent occasion I examined his nose, and found each middle meatus covered with dirty greenish crusts. He was given a cleansing lotion, and at his last visit no crusts were visible; his left nose was clear, but there was some pus in the right middle meatus and in the right choana. In spite of the improvement in his nose the hoarseness was worse. This was a fortnight ago, and I have not seen him since, but show him to-day, before further treatment is carried out, to see if members agree that the chronic laryngitis and ulcer are both due to infection from the nose.

SIR FELIX SEMON thought it was a simple case of chronic laryngitis, and was not tubercular or specific.

THE PRESIDENT said he was not sure of the presence of ulceration in this case.

DR. STCLAIR THOMSON, in reply, said that at first the idea of tubercle had occurred to his mind whilst diagnosing the case; but the temperature was normal, the pulse not hurried, and though repeated examinations of the chest were made, no signs of pulmonary tuberculosis were detected. There was no history of syphilis. Iodide of potassium was given, but this did not improve the patient, in fact the drug made him much worse. There was nothing definite about the nose, but there was a good deal of catarrh. He decided in favor of chronic laryngitis, possibly of nasal infection.

**Case of Infiltration of Right Cord of Three Months' Duration in a Man æt. Forty.**

Shown by DR. STCLAIR THOMSON. This man has been hoarse since early in January. It will be seen that the posterior two-thirds of the right cord is represented by an even, red infiltration. The cord moves freely. There is some general hypertrophic laryngitis. The cavum is clear; some polypi have been removed from each nostril. He has had some treatment with iodide of potassium, although there is no history of lues. Rest to the voice and abstinence from tobacco and spirits do not appear to have improved him.

DR. JOBSON HORNE considered that the changes to be seen in the larynx suggested *pachydermia diffusa*.

DR. STCLAIR THOMSON, in reply, agreed with the remarks put forward by Dr. Jobson Horne, and thought the case more like one of *pachydermia diffusa*. The patient had been watched for some time. He was suspected of being addicted to alcohol.

**Case of Infiltration of the Right Vocal Cord of Six Months' Duration in a Man æt. Fifty-Six.**

Shown by DR. STCLAIR THOMSON. This patient has been hoarse since September, 1900. The central portion of the right cord is rounded, red and infiltrated. As to the movement of the affected cord I have been considerably puzzled. At times it has appeared to move freely, but on other occasions I have felt convinced that it was slow and partially tethered in its excursions. The rest of the larynx is normal. He presents no changes in nose, pharynx, or chest. There is no history of suspicion of lues, but he has been given iodide of potassium up to 15 grs., three times a day, without any result. His weight is 12 st. 9½ lbs., and does not vary. Feeling that the appearances were uncertain and suspicious, I asked Sir Felix Semon to see the patient, about four months ago, and his conclusion was that there was not then sufficient evidence to justify a diagnosis of malignancy. Two months ago the patient was seen by Mr. Butlin, who wrote to me as follows: "I do not think it is a new growth. It is too smooth, and there is too free movement of



the cord. Also, his voice is not so badly affected as I should expect it to be with a malignant tumor of that size and character. On the other hand, I do not think that so definite and limited a swelling of the cord is likely to be due to any ordinary chronic inflammation. It is not like tubercle, not quite like syphilis, not like any of the 'infective' group of tumors. I have twice opened the larynx for somewhat similar tumors, under the impression that, if the disease was not malignant, it was too suspicious to be left. In one case I found in the center of the rounded swelling a little mass of what appeared to be coagulated blood, in the other something of the same kind, but not so dark-colored. One of the patients was a clergyman, the other a commercial traveler, therefore they both used their cords a good deal. I cannot help suspecting that this may be a case of a similar kind, in an agent who talks a good deal. In both my cases there was the same redness of the affected cord. I do not know whether you can get rid of the tumor without incising it or carefully cutting it away, taking the greatest care not to injure the cord itself in doing so. To do this may necessitate the opening of the larynx from the neck."

Both my patients are voice users; this one is a commercial traveler, while the former one is a shop assistant.

One of Mr. Butlin's cases is described by Sir Felix Semon in an article on "Blood-clots simulating Neoplasms in the Larynx,"\* and the description there given certainly suggests a similarity to the present case.

**Case of Laryngeal Neoplasm Occurring on the Posterior Wall, and Accompanied by Paresis of Left Vocal Cord in a Man æt. Forty-Nine. For Diagnosis.**

Shown by DR. SCANES SPICER. The only symptom had been hoarseness of gradual onset, commencing over four years ago. The growth was sessile, and attached to the posterior wall. A portion was curetted off, and reported by a pathological expert to be tubercular. Six weeks later a further portion was removed, and was deemed, after examination by the same expert, to be malignant. There had been no pain, hemorrhage, or emaciation, and there are no enlarged glands; no purulent infection from sinuses or nasal stenosis. There are no history or signs of syphilis or tuberculosis, and nothing to suggest excessive or perverted use of voice, or special exposure to dust in occupation. The patient had been on

\* *Annales des Maladies de l'Oreille, etc.*, xxv, No. 8, 1899

potassium iodide (gr. v, t. d. s.) for two months with no effect on his condition.

SIR FELIX SEMON feared the growth was malignant. Seeing that it was so very small, he advised an exploratory thyrotomy to aid the diagnosis, which was certainly difficult.

In reply, DR. SCANES SPICER said that, as there was a conflict between the evidence of the histologist and that of the history of the case, and as the clinical appearances were equivocal, he welcomed the remarks that had fallen from Sir Felix Semon. He had not seen the section himself, but clinically he doubted the malignant theory.

**A Case of Laryngitis with Marked Subglottic Hyperplasia Occurring below the Anterior Commissure in a Man æt. Thirty-six. For Diagnosis.**

Shown by DR. SCANES SPICER. The illness commenced with hoarseness four months ago. The patient is anemic, but there is no evidence of tuberculosis, there being no emaciation, night sweats, hemoptysis, or cough, and there is no history of any other disease. The treatment for the last month had been a spray of chloride of zinc and small doses of iodide of potassium. Dr. Spicer thought the case was not at all plain, and seeing that the patient was a corn dealer, he inquired whether it was possible that a husk had become imbedded in the larynx. Occasionally the epiglottis and aryepiglottic folds became edematous.

DR. DUNDAS GRANT thought it was a case of tuberculosis.

DR. PEGLER said, had not the evidence against tubercular disease of the lungs been confirmed, he would have regarded the laryngeal disease as tuberculous, to judge from a casual inspection.

**A Specimen of a Larynx from a Case of Primary Laryngeal Diphtheria.**

Shown by DR. LOGAN TURNER. The case was of interest from the fact that the disease was confined entirely to the larynx, that it occurred in a strong vigorous adult, and that it ran a rapidly fatal course. Frequent attacks of severe dyspnea necessitated tracheotomy. *Post-mortem* examination showed the mucous membrane of the larynx to be covered with diphtheritic membrane, which extended from the apex of the epiglottis to the cricoid cartilage. Bacteriological examination demonstrated the presence of the Klebs-Löffler bacillus and streptococci.

**A Specimen of a Larynx for Diagnosis.**

Shown by DR. LOGAN TURNER. The larynx was removed from a boy æt. eight years, who had died suddenly during the night from

asphyxia, resulting from the drawing of vomited matter into the larynx and bronchi. All the organs of the body were healthy.

The mucous membrane of the larynx and upper part of the trachea was studded with a number of small white points, varying in size from a half to one millimetre or more in diameter and resembling small miliary tubercles. The posterior surface of the epiglottis was almost completely covered by a large white patch of a similar kind. There was no evidence of ulceration or swelling.

The microscope showed that each patch appeared to consist of a small area of lymphoid tissue, lying beneath the epithelial layer, and infiltrating between the glands of the submucous layer. There was a small communication with the surface. There were no giant-cells or other evidence of a tuberculous condition.

DR. JOBSON HORNE said he examined the larynx, and also the microscopic section; he did not consider the minute nodules to which attention had been directed had any pathological significance. By the epithelium having been destroyed, the underlying structure had become more obvious.

#### **A Case of Destruction of the Nose caused by a Ferret.**

Shown by MR. WALSHAM. The patient is now twenty-four. At the age of three months a ferret was found gnawing her face. The whole of the nose, part of the skin of the forehead, and a large part of the middle of the upper lip were destroyed. She has had eighteen plastic operations, the most successful being done by Sir Thomas Smith in 1887, when the skin was taken from the arm, the arm then bound to the face for three weeks to fashion the nostrils, and the lip was repaired. The lip was very successful, and the left nostril fairly so. She has had the Indian operation done also, but it was a failure.

Right nostril was open, but closed up after last operation in 1899.

The PRESIDENT said that he agreed with Mr. Walsham that nothing further should be done. He added that he understood from Mr. Walsham that the introduction of cartilage in this case had been tried without success.

#### **A Case of Epithelioma of the Larynx.**

Shown by DR. JOBSON HORNE. The patient, a man *æt.* sixty-nine, stated that in August, 1899, he had "influenza" which was followed by some impairment of voice, and which had gradually increased; he had experienced no pain or discomfort, and had not troubled about medical advice. Excepting an occasional cold, he considered his general health had been good.

The growth occupied the anterior two-thirds of the right vocal cord, and appeared to be confined to this region. The greater part of the growth was a papillomatous mass filling the anterior third of the glottis. Right vocal cord motionless. Left not affected. Some general congestion of the larynx, but not more marked on right than left. No glandular enlargement.

Thirty grains of iodide of potassium had been taken daily during the previous fortnight without any material change.

The PRESIDENT said it looked malignant. There was want of action on the right side of the larynx.

SIR FELIX SEMON was of opinion that there could hardly be any doubt as to the malignancy. There should be no hesitation in performing thyrotomy and removing the growth.

DR. FITZGERALD POWELL said the patient had declined operation in January, and he had not seen him again until now. Though still thinking it malignant, the tumor had not grown or altered very much since January.

DR. JOBSON HORNE, in reply, expressed his thanks for the opinions, which he also shared.

#### **Case of Tubercle of the Larynx in a Man æt. Eighteen.**

Shown by DR. FITZGERALD POWELL. The patient states that he has suffered from gradually increasing hoarseness and difficulty of breathing for the last four years, accompanied by cough and attacks of suffocation at night.

On examination the epiglottis, arytenoids, ventricular bands and as much of the larynx as can be seen are found to be pale and much swollen, and there appears to be very little room for respiration. The swelling in parts is covered by superficial erosions.

He had applied a five per cent ointment of salicylic acid to the nose and face, which had caused some improvement.

#### **Specimens from Recent Cases Illustrating the Two Chief Classes of Intra-Nasal Papillomata.**

Shown by DR. WYATT WINGRAVE. 1. The squamous variety regionally belonging to the vestibule, and histologically identical with an ordinary cutaneous wart. 2. The columnar or cylindrical variety only growing on mucous membrane, and therefore never found in front of the lumen vestibuli.

This latter may grow from the septum, floor, or turbinals, and is often referred to as a "moriform growth." Histologically it presents digitations of myxedematous tissue covered with columnar or "palisade" epithelium, ciliated and smooth, resting upon a hyaloid basal border.

Warts on the mucous membrane may, however, be covered with squamous epithelium, a heterologous feature which is due to irritation causing retrograde changes, as seen in atrophic rhinitis, and often in slowly growing polypi.

One specimen is that of a "bleeding tumor." It is a squamous papilloma, which grew from the septum about half an inch behind the lumen vestibuli and above the floor. The "core" consists of numerous blood-vessels with very thin walls, which run into the digitations. Nests are found, but not of the "horny" variety so characteristic of the vestibular and cutaneous variety. The surface epithelial laminae are also thinner.

Bleeding tumors other than malignant and granulomatous most frequently are of one of these two types of papillomata.

#### **A Case of Pharyngo-Mycosis in a Female.**

Shown by Mr. ATTWOOD THORNE.

DR. SCANES SPICER said the question to be considered was whether these cases should be actively treated or not. When the patients were worried by symptoms such as a sensation of a foreign body, scraping, discomfort, sourness of breath, unpleasant taste, and flatulent dyspepsia, he would recommend active treatment, such as the free and regular use of alkaline antiseptic washes, the application of perchloride of mercury solution to the crypts, or the insertion of the galvano-caustic point into three, or four, or six of these at a time. He usually found that these cases were very obstinate, and that even long holidays, alternating with periods of active treatment, by no means guaranteed freedom from recurrence. Patients suffering from mycosis were not as a rule content to be left alone.

DR. PEGLER inquired whether a bad taste in the mouth was complained of.

DR. FITZGERALD POWELL advised scraping with a sharp curette once or twice a week, and the application of a solution of nitrate of silver, twenty to thirty grains to the ounce.

DR. WYATT WINGRAVE emphasized the importance of differential diagnosis between true leptothricia and keratosis of the tonsils. The latter appeared as hard papillary projections from the lacunæ, not easily removable, and showing under the microscope typical horny epithelium with few or no leptothrices. He had found a saturated solution of salicylic acid (well rubbed in) the best treatment for keratosis, while true pharyngo-mycosis yielded to sulphurous acid and antiseptics.

MR. PARKER thought that the most important point to be remembered in the treatment of cases of mycosis was that in the early stages of the trouble the fungus was very firmly adherent and very difficult to remove or destroy, but that if it was left alone for a few months—some placebo being given to the patient in the meanwhile—the fungus growth generally became quite loose, and it could then be easily wiped away.

SIR FELIX SEMON said he found that these cases, whether of the leptothricial type, or a true keratosis, always occurred in people very much below par, and if they were ordered change of air, tonics, rest, open-air exercise, etc., they would, in his opinion, get well without any other treatment, medicinal or operative. In his experience a bad taste was not at all usually present in the mouth.

**Case of Antral Suppuration with Marked Distension of the Inner Antral Wall.**

Shown by DR. HERBERT TILLEY. The patient is a boy æt. sixteen, who came under treatment for inability to breathe through the right nostril and a purulent nasal discharge, associated with feeling of langor and general depression.

Examination of the right nasal cavity showed a large swelling of the inner antral wall, which touched the septum opposite. On pressing it outwards with a probe a crackling sensation and noise were produced. A ridge of bone traversed the swelling from above downwards, and at first sight the appearance closely resembled that of a swollen middle turbinal, but the latter bone could be seen in its normal position above.

The bone ridge referred to was undoubtedly the uncinate process of the ethmoid, and immediately in front of this the soft bulging could be easily penetrated by an ordinary surgical probe.

The right second upper bicuspid, which was carious, was removed, and for three months the patient had been irrigating the antrum twice daily with various antiseptic washes. As long as these were continued the discharge practically ceased, but if the irrigation was interrupted for two or three days, then the discharge reappeared. The question arose as to whether any radical operation, such as removal of the bulging inner wall; or even a more radical procedure, should be adapted. The patient's father was very averse to any operation unless it was absolutely necessary for the cure of the case.

The PRESIDENT said that Dr. Tilley's motive in showing the case was to receive suggestions for treatment. It seemed as if the inner wall of the antrum was very much bulged, but, to make certain of this, examination of the parts with a fine probe was necessary. He would not advise a radical operation being done at present. The opening had only been made in January last, and the discharge, according to the patient, was slight in quantity, therefore he thought syringing should be continued for a time.

DR. FITZGERALD POWELL said that if it was a fact, as he understood was the case, that there was no discharge at all, he did not think it was necessary to do a radical operation on the chance of discovering polypi.

DR. SCANES SPICER saw no objection to waiting a little longer before resorting to further operative measures.

#### Case of Cyst of the Thyroid.

Shown by DR. PEGLER. The patient was an elderly woman under the care of Dr. Frederick Spicer, for whom the exhibitor had offered to show her to the Society. An operation was contemplated next day, and Dr. Spicer would be glad of suggestions.

The swelling was the size of an orange, tense, fluctuating, and having a history of about eighteen months' duration. There were pressure symptoms, which had increased latterly, and the larynx was considerably displaced.

The PRESIDENT said that he was always doubtful as regards the cystic nature of these growths. He had had a large experience of them, and he was of opinion that without puncturing it was not possible to say whether they were cystic or not. This, he believed, had not been done in this case; probably not one, but several cysts would be found. With regard to treatment, the shelling out of these cysts could usually be accomplished without much difficulty; but in those cases where it could not be done, he had adopted the plan of opening the cysts and sewing the wall to the edge of the skin, allowing the cavity to granulate up. It took a longer time, but gave good results. He had been in the habit of puncturing goitres for exploratory purposes for many years, but had had an unusual experience lately. Immediately after puncturing a moderate sized goitre in a woman aged twenty-five, and evacuating only a few drops of blood, the gland swelled up slightly, and a few days afterwards he heard from the medical man that an extensive ecchymosis had come out, extending down to the nipples. This soon subsided, and the gland returned to its previous size. Some tachycardia was present in this case, but no exophthalmos.

DR. DUNDAS GRANT asked if other members of the Society had had good results from tapping and then injecting perchloride of iron, as formulated by Sir Morell Mackenzie. He had several cases in which this procedure answered well. He was guided beforehand by the degree of collapse that the cyst underwent after tapping, and previous to injecting with iron.

SIR FELIX SEMON could answer Dr. Grant's question. Some fifteen or twenty years ago he had a very lively controversy in the *British Medical Journal* on the injection treatment of goitres. He then quoted a number of cases showing that the injection of iodine occasionally was very dangerous. Since then he knew of another case in which injection of iron after puncturing a cyst had been followed by inflammation of the gland, sepsis and death. In former years he himself had used injections a good deal in his cases, and had never personally had any bad result, but he had now completely given up this method of treatment. The surgery of the thyroid gland had made such advance that one ought not to have recourse to such



expedients as injections now, when one could remove the whole thing more simply and surgically.

The PRESIDENT agreed with Sir Felix Semon that the injection of iron was not satisfactory. It might produce an abscess, and give rise to a great deal of trouble.

DR. STCLAIR THOMSON thought that in modern surgery the method of tapping and injecting cysts had gone out of practice. It was simply done in the pre-antiseptic days from fear of opening these cavities, but now they might be opened perfectly harmlessly.

DR. FITZGERALD POWELL said he thought the best treatment was removal of the tumor.

#### **Case of Unusual Tumor on the Posterior Wall of the Larynx.**

Shown by DR. LAMBERT LACK. The patient is a female, married, æt. thirty-nine, who for fifteen years has had occasional difficulty in swallowing. This has been worse for the last three months, and the voice has been weak. The patient is thin, but not wasting, and there are no enlarged glands in the neck. On laryngoscopic examination a large, nodular, pale tumor is seen projecting from the posterior surface of the arytenoids on the right side. It is soft to touch, and grows apparently from the posterior surface of the cricoid cartilage. The growth is almost certainly not epithelioma, and appears to be either simple or possibly sarcomatous. Suggestions as to diagnosis and treatment are asked for, since as far as the exhibitor's experience goes the case is quite unique.

SIR FELIX SEMON considered it a very interesting and rare case. Of one thing he felt sure, and that was that it was not carcinomatous, and he was very strongly of opinion that it was not a sarcoma. If it were a malignant growth, there would be by now secondary infection of the lymphatics, and there would also be deficiency of movement of the vocal cord on the affected side, from myopathic disability of the posterior crico-arytenoid muscle. Both these signs being absent here, he was convinced of the innocent nature of the growth. He advised that the growth should be removed by the snare internally, and should be submitted to microscopical examination, and he would be guided in the future treatment of the case by the result of that examination.

DR. STCLAIR THOMSON thought it should be described as an esophageal growth. It seemed to him to be a simple growth, and he agreed with Sir Felix Semon's remarks. Sir Felix and he had seen a similar case in consultation together. The patient was a lady from the Cape, who had a suspicious-looking growth behind the larynx, and they had come to the conclusion that there was an abscess in connection with it, which of course there was not in Dr. Lack's case; but the tumor was like the one in the present case. His own patient returned to the Cape two or three years ago, and he had since heard that she had remained perfectly well. She was an elderly woman;

the glands were not enlarged. No operative treatment was carried out.

DR. JOBSON HORNE, referring to the remarks made by the previous speaker, said he thought the growth sprang primarily and mainly from the arytenoid region, and he regarded it as a laryngeal and not as an esophageal growth.

**Case of Specific Perforation of the Palate and Ulceration of the Larynx of Tuberculous Appearance in a Middle-aged Woman.**

Shown by DR. DUNDAS GRANT. The perforation of the palate was typical of tertiary syphilis, and there was indirect evidence (miscarriages, etc.) of specific infection. In the larynx the epiglottis was thickened and ulcerated all over in a manner resembling tuberculosis, but without any increase of secretion. Dr. Grant asked whether this appearance had been met with by other members in pure cases of syphilis; he was himself of the opinion that the process in the larynx was of tuberculous nature, and that, in fact, the case was one of mixed tuberculosis and syphilis.

DR. SCANES SPICER said that this case had been under his care some time ago. He regarded the present condition of the epiglottis as a tubercular one, for the appearances differed from all the syphilitic ulcerations he had seen.

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PROCEEDINGS OF THE WESTERN OPHTHALMOLOGIC AND  
OTO-LARYNGOLOGIC ASSOCIATION.

*Sixth Annual Meeting—Cincinnati, April 11-12, 1901.*

**Remarks by the President—M. A. GOLDSTEIN—(St. Louis).**

I feel assured that I voice the sentiments of the officers and members of the Western Ophthalmologic and Oto-Laryngologic Association and their friends in expressing our thorough appreciation of the cordial welcome which has been extended to us during the sixth annual meeting of our Society in Cincinnati.

While much of the reputation and standing of our organization depends upon the competency of its officers and members, the scientific value of the papers presented, and the activity and interest displayed at our annual meetings, there is yet another feature which constitutes the real life of our Society, and that is the feeling of good-fellowship and good-will which has existed since the organization meeting. To this cordiality of spirit and the good work of our members during the past five years we must mainly attribute our growth and our success. Though we organized with but a handful of Western co-workers, our honest efforts and steadfastness of purpose gives promise of a natural, healthy growth, and a strong organization.

To-day our membership numbers over one hundred representative active workers in ophthalmology, otology and laryngology; we range from the sunny South to the far West, throughout the Mississippi Valley, from the North as far as St. Paul and from the East to the boundaries of the Allegheny mountains. Surely our geographical limitations offer every prospect of a large society.

The association of ophthalmology with oto-laryngology is an unusual one in special society work at the present time, but it has proven to be a strong and acceptable alliance. While there is a tendency everywhere to limit the work in the specialties of medicine as much as possible in convention, yet the class of our membership makes this combination thoroughly feasible. Many of our members hail from smaller cities where the specialties of ophthalmology and oto-laryngology must of necessity be associated and requires the active practice of diseases of the eye, ear, nose and throat by those of our members who are so situated.

As long as this combination meets with the continued indorsement of our members it will be maintained.

We have found it practical to meet in separate sections:

1. The section in ophthalmology; 2. The section in otolaryngology.

It has been suggested that in future conventions the meetings be so arranged that members may attend both sections.

**A Means of Reducing an Over-Growth of the Inter-Maxillary Frenum, Permitting the Retention of Two Central Incisors in Close Apposition,** By H. W. LOEB, M.D., St. Louis, Mo.

This paper will appear in full in *THE LARYNGOSCOPE*.

DISCUSSION.

DR. FLETCHER (by invitation): If I understand the position of the essayist it is that this growth of tissue has a tendency to separate the teeth. In working with cases of orthodontia, I find one law is absolute, namely, that continuous pressure against bone tissue will cause its absorption. This law is taken advantage of in moving teeth, and when they are put in correct position, they are held there for a considerable length of time, for they have a tendency to move back to their former position. This tendency to revert may continue for years, so the practice now is to put a retaining appliance on and have them held in their new places one or two years, depending upon the age of the patient. Of course removing of tissue between the teeth obviates this necessity, but as to the separation being caused by the pull of the frenum of the lip I am skeptical.

There is one feature I think the essayist did not touch upon. Where there is a separation between teeth and the patient is using them constantly, the continual wedging of food will keep them separated. This is a condition we find in the young especially, but it is often found in older patients.

If there is separation at the time of eruption and there is no force brought to bear to bring them together, either by the pressure of the erupting teeth behind the centrals, or by artificial means they may remain permanently separated. I understand this to be the class spoken of. But the law of moving the teeth which is taken advantage of by men who do orthodontia is, that pressure against the bone will produce an absorption at the point of pressure. If the pressure is continued long enough you can change the shape of any bone, the whole shape and expression of the lower part of the face may be changed in this way. In moving teeth,

the absorption is in front of the tooth, cicatricial tissue forming behind.

There is also a pathological condition which should be taken into consideration and that is disease of the periosteum and bone caused by calcerous deposits known by several names, the latest is interstitial gingivitis, formerly pyorrhœa alveolaris and still earlier as Riggs' disease. This condition may progress up the side of the teeth and destroy a great deal of bone and peritoneal membrane producing separation; this may occur in early life or in later years. I have seen it in the deciduous teeth in children at seven years of age, and believe it may at times have something to do with the cause in question.

DR. GOLDSTEIN: I would like to ask whether the reduction of this central space by cicatrization does not necessarily cause a spacing between the adjacent teeth sufficient to overcome the value of drawing the centrals together.

DR. PIERCE: It seems to me that if you substitute scar tissue for normal tissue, the approximation of the teeth is rendered more difficult.

DR. PYNCHON: I would like to ask if it is not a fact that the doctor has also been giving these patients more or less attention as to the nose and throat in order to do away with the habit of mouth-breathing? In one or two cases I have removed with the cautery redundant tissue that grew between the teeth, with the nicest results.

**The Attic of the Nose.** By EDWIN PYNCHON, M.D., Chicago.

This paper will appear in full in THE LARYNGOSCOPE.

#### DISCUSSION.

DR. BALLENGER, Chicago: I wish to commend the thorough and able paper by Dr. Pynchon, and especially that part of it which emphasises the influence of morbid conditions in the region of the middle turbinate in perpetuating the annual attacks of hay-fever. I believe we have all recognized the influence of polypi, but have overlooked simple enlargements of the middle turbinates, which result in obstruction to the free drainage and aeration of the superior meatus, or, as the essayist happily calls it, the "attic of the nose."

The essayist referred very kindly to some published observations of mine as to the causation of the symptom complex of nasal obstruction, especially as seen in children with post-nasal adenoids. B. Fränkel has seen my published report of this work, and, I understand, has expressed himself as pleased with the same. I will here

quote from my latest statement on the subject:\* "The term 'mouth breathing' implies the absence of nasal respiration. In other words, the respiratory functions of the nose are lost to the physical economy.

1. The respiratory functions of the nose are to warm or cool, moisten and filter the inspired air.

"2. In mouth-breathers these functions are absent.

"3. The lower air tract is unable to supply sufficient moisture for physiologic purposes or is deprived of it.

"4. An irritation of the epithelial lining of the air vesicles results.

"5. This irritation causes thickening of the vesicle walls.

"6. Deficient oxygenation of the blood results in imperfect oxygenation of the tissues, half-oxidized products being thrown into the circulation.

"7. The half-way products cause nervous phenomena.

"8. And malnutrition leads to physical imperfection.

"9. Excessive accumulation of carbon dioxide in the blood impairs the functions of the leucocytes and other cellular elements.

"10. Microbic infection is thereby rendered easy and the partially oxidized products are not removed from the circulation by the leucocytes. The nervous phenomena are thereby augmented.

"The foregoing train of occurrences may be observed in children who are mouth-breathers, whether it be due to postnasal adenoids or other forms of nasal obstruction."

In two previous articles I published what is embraced in the foregoing statement, hoping to call the attention of other observers to the hypothesis as therein stated and get them to make observations along the same line and report them to the medical fraternity. Thus far I have seen no references to this work, but have had the favorable commendation of Fränkel, and trust that others may give it their serious attention and thus help to explain the peculiar train of symptoms which are so familiar in children who are mouth-breathers.

DR. STEIN: In listening to Dr. Pyncheon's very thorough paper, I do not see that he has brought anything new to notice or anything we have not been quite familiar with, and the only conclusion I can come to is that he can treat almost anything from scalp disease to appendicitis by paying attention to the attic of the nose. That might seem rather broad, but he mentions an array of diseases that would probably take up six or seven chapters in a text-book. But I think it has a bad influence upon young men of our specialty. I think that teaching and inculcating such ideas of operative inter-

\* Ballenger and Wipperfurth: A Text-Book on the Eye, Ear Nose and Throat, pp. 409, 410.

ference and radical treatment—and Dr. Pynchon is, I know, rather a radical operator, for where there is the slightest divergence from the normal in the nose he attributes the disturbance to the condition of the attic and performs a radical operation—the idea is bad to instill into the minds of young rhinologists who are seeking every opportunity to do work.

DR. PYNCHON (closing discussion): It is true that in the process of evaporation the air absorbs the moisture. In regard to Hollopeter, he does not enlarge on the massage feature. The principal reason I mentioned this was to endorse the idea that in hay-fever there is something of a ptomaine nature in the secretion of the nose and patients are relieved by its removal. Dr. Stein has been very liberal in his estimation as regards the number of diseases I can cure by attacking the attic of the nose, but you will remember that one of the numerous diseases is vertigo, and Dr. Stein is my authority for that.

**A New Technique for the Reduction of Turbinal Hypertrophies.** M. A. GOLDSTEIN, M.D., St. Louis.

This paper appeared in full in *THE LARYNGOSCOPE*, May, 1901, page 325.

DISCUSSION.

DR. PIERCE: My compliments to Dr. Goldstein on this improved instrument. The only point I see to criticise is that the trocar point is too sharp, and unless very carefully used might puncture the surface of the mucosa, which would not be of serious consequence but unnecessary. It would require a good deal of force to induce a blunt or probe-pointed instrument to puncture the submucous-connective tissue and thus break the surface continuity. Otherwise this instrument seems to take the place of the three instruments that I devised for accomplishing the same work.

DR. STEIN: As I understand this method, it is a sub-mucous puncture. When you introduce the probe it is directly under the mucous membrane. Where you have an enormously large turbinal, true hypertrophic tissue, where there is quite a space between the periosteum and the mucous surface, I understand Dr. Goldstein would follow close to the bone. Which line would he follow, close to the periosteum at all times or right under the mucous membrane? I would like to also ask whether he uses this method in the hyperplastic form of rhinitis?

DR. HOLINGER: Dr. Goldstein says the method is valuable in all forms of hypertrophy, and I would like to know whether he is able



to reduce these big hypertrophies of the rear ends of the inferior turbinals which are usually removed with the snare. Another point, Dr. Goldstein says there is no destruction of tissue. I should like to know where he expects success, and what he calls it when he brings chromic acid in connection with the live tissues. I think there must be destruction.

DR. BALLENGER: Dr. Goldstein objects to the removal of the inferior turbinated body with a spokeshave and bases this on various ideas, one being on account of the very severe hemorrhage that follows the operation. I have had very little experience in the removal of the inferior turbinated body. I have done it only three times, twice in the past year. I have only had hemorrhage in one case and that was in the incipient stage of typhoid. The other two cases were not followed by hemorrhage and were not packed to prevent hemorrhage. I am not an enthusiast in recommending the promiscuous removal of the inferior turbinated body, on the contrary I condemn it except in rare and selected cases.

Dr. Goldstein condemns without stint the reduction of hypertrophies with the electric cautery. It is the fashion now-a-days to do that. I say "fashion" advisedly. We physicians follow one another like a drove of sheep. One man is conservative, and another is radical, and it gets to be a fashion. It seems to me that it is fashionable to say "it is a bad practice to use the cautery for the reduction of the inferior turbinated body." I do not use it as much as formerly, nor are my results as good. I believe the objection to the cautery is based upon a theory and not upon facts, and I would be glad to hear the facts to support this claim. I have not heard any one state any facts, but only that it is bad and he does not use it as often as he used to. My own personal observations are that my results are not so good as when I used it oftener. This method may be a better one; I have never used it. I thought when I heard Dr. Pierce read his paper at Minneapolis I would certainly use it. There are objections to the use of chromic acid in this way, and they may be serious; it is a well-known irritant of the renal organs, and I believe it could be demonstrated if the urine were tested that an acute albuminuria would be found present in many instances after its use; therefore, I should be afraid to use chromic acid by the submucous method in cases where renal disease is known to exist. I would think it reprehensible, and I think this should be borne in mind and that we should not use it where we have reason to believe the kidneys are not in perfect order.

The "mulberry" hypertrophies I believe are incorrectly so called in many instances. I believe the condition is sometimes one of true

atrophy. The atrophy when found is no doubt due to the blood pressure within the venous plexuses or "swell bodies" located in this region. The mucosa covering the "swell body" becomes thin and the dark color of the venous blood gives the engaged end of the turbinated a mulberry-like appearance.

I wish to thank Dr. Goldstein for presenting his improved instruments and his experience in using them.

DR. PIERCE asked if I had ever made examinations of the mulberry enlargements under the microscope. I spent two or three hours a day in the Columbus Medical Laboratory for about three years and was particular to examine all cases under my observation. It is a well-known fact that atrophy is often preceded by hypertrophy, and I should, therefore, modify my statement accordingly; but I believe many of these cases finally assume a state of true atrophy in which there is an increase in the connective tissue and a decrease in all other cellular structure.

I have never practiced the radical electro-cauterization as described by Dr. Pierce. Electro-cauterization was at one time done in a radical and destructive way. I count myself fortunate that I did not become a votary to that style of work. I have, however, used the electro-cautery in a more moderate way for ten years and believe it is a method we should not discard. I am only protesting against swinging to the extreme position taken by those who would unqualifiedly condemn electro-cauterization.

DR. PIERCE: I want to go on record as one who believes that, broadly speaking, the use of the cautery in the nose is to be avoided. As used in the past it has gone for good. The good sense of the profession may be depended on to adopt the golden middle way. Regarding the danger of chromic acid, I believe personally it is overrated when used in this way. This point was brought up at Minneapolis, when I read my paper. After an experience of five years I have never seen the slightest indication of any renal trouble following its application. Regarding what Dr. Ballenger says in reference to the mulberry hypertrophy of the turbinated bodies, we find not only that the external contour of the body is changed but the sinuses are increased in number and the interstitial tissue is increased in density and volume. We cannot speak of these cases as atrophies.

DR. PYNCHON: I will say the same as Dr. Ballenger, that I do not use the cautery as much as formerly. As I said in my paper, the original aim of rhinologists was to increase the breath way of the nose and therefore it was the custom to freely cauterize the in-

ferior turbinal. Of late it has been my custom to never give the patient an operation at the first interview. I always put him on a preliminary treatment and if there is present any hyperemic condition it will subside, and if it does subside by the use of medicines there is no use of attacking it surgically. In some cases I use the electro-cautery. When I use it I believe in using it vigorously, because I wish to destroy an excess of tissue and give increased vitality to that portion not cauterized. The result is that the turbinal is restored to its normal condition.

DR. KNAPP, of Vincennes: I am pleased to have had the pleasure of hearing Dr. Goldstein's paper, and to have seen the little instrument devised by him, but until I have given it a trial I shall have very little faith in its efficacy, from the simple fact that in all cases of cauterization I have employed—that is in hypertrophy, I do not speak of hyperemic conditions, there has been but temporary relief. It does give temporary relief. I also find that the reaction of cauterizing, especially with the galvano-cautery, in many cases causes inflammation of the surrounding parts, which we should not and do not wish to assail. In the method that has been demonstrated here by the use of this instrument, I would like to know if tissue is not destroyed, or how would he obtain the results we wish to obtain by the method of cauterization or reducing the hypertrophy. Then I would like to know about drainage. If he has destruction of tissue, what is he going to do about drainage? I have operated several hundred cases. Years ago I used the galvano-cautery. I have had an opportunity of looking after a number of cases for years, four, five, six, seven years, and in the majority of cases in which I have cauterized with acids and the galvano-cautery, the patients have returned for treatment later on. My method for the past two years is to reduce by operative procedure in the hypertrophic condition. In a few cases it is sufficient to simply reduce the hypertrophic tissues, but in the majority of cases I find it necessary with the hypertrophic tissue to remove a small portion of the bone. Three months later it would be difficult for any one to say it has been operated upon. You will find a normal mucous membrane and epithelium. As to hemorrhage, I have operated nearly three hundred cases, and have had one case of primary and two of secondary hemorrhage. To overcome hemorrhage I use a cotton tampon immersed in oil, and my experience that if the tampon is just large enough to not crowd or cause pressure, and thus irritate, that you will have no primary hemorrhage; and by leaving tampon from thirty to forty-eight hours and removing it as I shall demon-

strate, there will be no hemorrhage. I take gauze folded in this way, and keep folding until I get the required thickness, then I trim the four sides so as to have it in layers. I immerse this in alboline and place this in the cavity, and place it there with very little pressure with my forceps, and have it long enough to cover the entire surface which has been operated. When you go to remove it, remove the pieces with the forceps, the center layer first, then those next to the septum, leaving one or two layers of the gauze which may adhere to the operated surface, and the day following, or in two days, that will come away and you will have a nice surface. You have no possible chance of infection, and my experience has been from this operation very few patients will object to returning for an operation on the opposite side or on the septum or the nasopharyngeal space if necessary.

DR. JOS. BECK: I have used Dr. Pierce's method for about a year, in all about twenty-five cases and I have been watching them very closely. In regard to Dr. Goldstein's objection that he could not find the opening after he has made it to apply the chromic acid, I find that if I use a tampon with suprarenal capsule or adrenalin, I can see the opening and can introduce the probe with more ease than formerly. I can see a great advantage in the instrument and would be glad to know where it can be had. There is a method practiced in Kauffman's clinic in Prague. He makes reduction of the turbinated body with forceps. The forceps, which are sharp and are introduced into the opening and the sub-mucous tissues are crushed. When this instrument feels the bone of the turbinated body, he includes a certain amount of tissue and then crushes. I could not tell the results as I was only there three months, but this was the procedure. In regard to the posterior enlargement, it is true enough there is an atrophic condition of the mucous glands filled with secretion. Microscopical examination shows it to be a hypertrophy.

DR. BOYLAN: I simply want to inquire whether there occurs a sloughing after this operation.

DR. ANDREWS: I would like to ask how he regulates the amount of chromic acid he introduces.

DR. GOLDSTEIN (closing discussion): The very brisk and scientific discussion shows the vital importance of this matter, and while there is still considerable dissent on the subject, I believe we are on the eve of a better understanding.

Dr. Stein refers to the enormous hypertrophies which sometimes occur in the nose. I distinctly mentioned in the paper that the ma-

jority of our cases are not of this variety. The majority are the moderate hypertrophies, not of the extreme, dense variety, and these are the cases I have subjected to this operation. As to the direction of the introduction of the probe. The point is to get between the bone and the most dependent underlying vascular tissues. This technique is not applicable to cases of unusually large hypertrophy of the middle turbinal. Dr. Holinger evidently misunderstood the suggestion in my paper concerning the destruction of tissue. What I claim is done by the radical operation is that the physiologically, vital tissues are destroyed, while with this sub-mucous cauterization the tissue which is destroyed is of a character not to interfere with the subsequent natural function of the nose. The process which takes place with the application of chromic acid is the choking off of the vascular supply. You have as a result of the cauterization a mass of embryonal connective tissue which goes on to form a scar tissue, and if you have hugged the bone as closely as possible, your success is almost always assured.

Dr. Thompson asks how to prevent the acid destroying the instruments. I am more concerned for the patient; and if the acid destroys an instrument, I get another. These instruments may be obtained of the A. S. Aloe Company, 517 Olive street, St. Louis.

Answering the question of Dr. Boylan, I have not seen a single case of sloughing following cauterization with chromic acid. The regulation of the amount of the acid is by the size of the bead fused on the probe. I have a smaller trocar and probe for mild cases. Dr. Ballenger's suggestion as to the possibility of reaction of chromic acid on the renal organs should be considered and I think it is well to make a preliminary examination of the urine if there is any suspicion of an abnormal condition of the kidneys.

As to the gauze pack, I have used it in several layers, properly shaping it to the canal, and I do not think Dr. Knapp's suggestion to remove the dressing layer by layer will bear a practical test.

Why Dr. Loeb should doubt the freedom from bacterial infection in the introduction of a sharp, aseptic probe tipped with chromic acid, where the entire wound is only as large as the instrument, and where the secretions and air cannot come in contact with the area, I do not understand. A tunnel made directly into the tissues, protected by an antiseptic dressing, and where the material introduced is aseptic, and where with the withdrawal of the acid you seal the point of entrance will not become septic.

*(To be continued.)*

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## SELECTED ABSTRACTS.

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EDITORIAL STAFF.

### A Case of Fracture of the Anterior Fossa of the Skull with Cerebro-Spinal Rhinorrhœa—F. C. LARKIN—*Liverp. Med.-Clic. Journ.*, July, 1900.

A man, aged twenty-one, in good health, met with a severe bicycle accident and was picked up unconscious and taken to Booth Hospital where he regained consciousness on the succeeding day. He was discharged from hospital three days after admission, and it was then noticed that a "tremendous quantity of water ran from his nose." Though he was able to resume work the next week he was much annoyed and hindered by the dropping from his nose, which was continuous during the day time and came from both nostrils. The fluid was perfectly clear and tasted "salty." When he stooped it would run for a few seconds, not in drops merely, but in a continuous stream.

About six weeks after the accident the flow stopped suddenly, and then he occasionally complained of frontal headache. But eight months after the accident he contracted influenza and developed symptoms of intracranial complications from which he succumbed a few days later. At the post mortem examination general purulent meningitis and a large abscess cavity in the left superior frontal region. Examination of the base of the skull revealed an old and extensive fracture in the fronto-sphenoidal region, communicating with the left antrum of Highmore, and thence with the nose, but there was no direct opening into the nose.

P. WATSON WILLIAMS.

### Papilloma of the Vestibular Region of the Nose—BEALE—*Archiv. Ital. di Laryngologia*, April, 1900.

In the internal wall of the right nostril of the patient was a little formation of a bright red color having the clinical appearance of acuminate condyloma. The patient had suffered from acuminate condyloma in the *salvus balano-preputialis*. The microscopical examination demonstrated analogy in the anatomical structure for the papillæ development and for the epithelial elements, disposition and configuration.

**Bacteria in the Normal Nose, and the Bactericidal Power of the Nasal Secretions**—N. Y. N. SCHOUSBOE—Page 116, 1901.

1. The author concludes that with each inspiration is deposited within the nose numerous bacteria, an evidence of which is the fact that the expiratory air is sterile.

2. The larger quantity of germs in the inspired air are deposited in the cavities of the nose.

3. Within the limits of the nasal cavity proper, in its normal condition, there are found, as a rule, very few bacteria.

4. The nasal secretion seems to possess anti-bactericidal power.

5. This power is lost by warming up to 70°C., which causes the secretion to become turbid, and easily discharged in coagulous mass.

6. When the secretion is frozen, and after half an hour permitted to thaw in the higher temperature of a room it still retains its power to destroy bacteria.

GOTTLIEB KIAER.

**Removal of Foreign Bodies from the Trachea—With Report of an Interesting Case**—PAUL F. EVE (Nashville, Tenn.)—*Southern Practitioner*, May, 1900.

A girl of eleven years had inhaled a shawl-pin into her trachea. As intra-laryngeal efforts proved unsuccessful a tracheotomy was made with a view of removing the foreign body. During the operation, however, the patient developed severe symptoms of shock, and the operation was abandoned and a tracheal tube inserted. The third day after the operation, during a violent fit of coughing, one portion of the head was coughed up, swallowed and passed through the rectum the following morning. On the eighth day, during another fit of coughing, the other piece was coughed up, swallowed and passed the next morning through the rectum. The tracheal tube was removed on the tenth day and the opening allowed to heal.

W. SCHEPPEGRELL.

**A Case of Disturbed Laryngeal Innervation of Bulbar Origin—**

STRAZZA—*Archiv. It. di. Otologia*, 1901.

The patient having suffered from a syphilitic infection for some years began to manifest alteration in the voice, difficulty in swallowing and a tendency for the food to go through the nose. There was entire absence of any sign of disorder of innervation of the pneumogastricum; there was presence of paralytical phenomena and notable atrophy in the muscles trapezius and sterno-cleido-mastoideus of the right side, which correspond to the field of distribution of the external branch of the spinalis. There was palsy in the right side of the *palatum molle* and of the superior *musculi pharyngei* which corresponded to the internal branch of the spinalis. Finally there was hemiplegia of the right side of the larynx. This demonstrates the fact that the fibrillæ which enter into the constitution of the recurrent are dependent upon the bulbar nucleus of the spinalis.

COLLINA.

**A Further Note on the Production of Local Anesthesia in the Ear, Nose and Throat**—ALBERT A. GRAY—*The Lancet*, March 9, 1901.

In *The Lancet* of April 21, 1900, p. 1125, the author described a method by means of which the difficulty of obtaining local anesthesia in the ear could be overcome. It consisted essentially in using a solution of cocaine in anilin oil and rectified spirit. As the method has been widely adopted both in this country and abroad, he describes some little improvements which allow the limits of the application to be considerably widened.

In regard to the physiological effects of this method a few words are required. He has not had any trouble himself with symptoms of intoxication, either by the anilin or by the cocaine, but has heard of two cases in which a little trouble resulted. One of these was a case evidently of cocaine intoxication, and the patient recovered in the course of an hour or two. The second case occurred in a patient aged six years. The solution was instilled into the meatus until the latter was full. In the course of an hour or so the patient's lips became blue, and slight gastric catarrh occurred, but no other symptoms were present, and the patient was well again in a few hours. As a matter of fact, beyond the peculiar blue color of the lips, there was nothing alarming to note. Excepting these cases, neither of which occurred in his own practice, he has not seen or heard of any trouble with the solution.

A few words may be said in regard to the peculiar blue color of the lips which sometimes occurs. Several of his patients have told him that an hour or two after the use of the solution their friends noticed this peculiar color. No symptoms were present in any of the cases, and the patients would not have known about it had their attention not been drawn to it by their friends. It always passes off in the course of a few hours, and leaves no effects. This is due to the transformation of oxyhemoglobin into methemoglobin. Its occurrence may be avoided, if so desired, by limiting the dose to 20 minims for adults or adolescents and corresponding doses for children. As regards children, it must be remembered that they are said to stand cocaine badly.

(*Note by Abstractor.*—Compare the observation of cyanosis and acute cardiac dilatation from the aural use of anilin oil reported by myself in *The Lancet*, April 20, 1901). STCLAIR THOMSON.

**Rhinoliths Associated with Mucous Polypus of the Nose**—ASCENSO—*Arch. Ital. di Otologia*, 1901.

A peasant, aged twenty-two, for two years complained of obstruction of the left nostril. The author removed a rhinolith as big as a walnut, composed of lime carbonates and phosphates, friable and containing a nucleus formed by a leaf turned upon itself. There were also two polypus with thin peduncle. COLLINA.

**Bacteriological Researches on the Middle Ear in the Normal Conditions**—CITELLI—*Arch. Ital. di Otologia*.

The presence of micro-organisms in the normal *cavum tympani* is still mooted. The author has made some researches, upon both ears, of fifteen dogs and five rabbits. In eleven dogs and four rabbits the result was negative, and in the other five cases there was a very limited development of microbic colonies. This fact demonstrates that organs, anatomically and physiologically considered as especially designed for the protection of the *cavum tympani*, are not sufficient to the accomplishment of this end in all cases. As demonstrative of this fact, the author made a second series of experiments. He introduced cultures of different pathogenical micro-organisms in the *cavum pharyngo nasale* of dogs and of rabbits, and in a few hours after having killed the animals, found that the micro-organisms had arrived through the tuba Eustachii to the *cavum tympani*. He concludes that in normal conditions in the *cavum tympani* there are no micro-organisms or only very few with the possibilities of development; that the tuba Eustachii in normal conditions cannot entirely prevent the penetration of micro-organisms from the *cavum pharyngo nasale* in the tympanum. COLLINA.

**Labyrinthitis from Parotitis**—GRADENIGO—*Arch. Ital. di Otologie*, 1901.

The author briefly illustrates two cases of this rare and serious complication of parotitis. The first case was a child six years old who fell ill of a mild parotitis. During the night, between the fourth and fifth day, when the fever had apparently disappeared, the patient became quite deaf. Examination of the ears, nose and throat was negative. The bodily equilibrium was not disturbed with the eyes open, but when closed the standing position was maintained with difficulty, and upon one foot impossible. There was no emesis. All treatment proved unavailing.

The second case was that of a young man twenty-one years old. He also had a mild parotitis, succeeded by orchitis. After ten or twelve days, when he had seemingly recovered, he noticed a tinkling in the right ear. At the examination of this ear the membrana tympani was apparently normal in color and mobility. No acoustical perception was demonstrable. COLLINA.

**Some Notes on Antitoxin, Diphtheria and Streptococcus**—C. M. SEBASTIAN (Martin, Tenn)—*Memphis Med. Monthly*, May, 1901.

The clinical history of nine cases in which the antistreptococcic serum was successfully used. While the cases described refer to erysipelas and puerperal infection, still it illustrates the value of the antistreptococcic serum and shows its potential value in cases of diphtheria in which there is also an antistreptococcic infection. These cases are of special interest as the cases heretofore reported of the use of the antistreptococcic serum have not been of an encouraging character. W. SCHEPPEGRELL.

**On the Question of the Advisability of Ligaturing the Jugular Vein in the Treatment of Sigmoid-Sinus Thrombosis—J.**

LACY FIRTH—*Bristol Medico-Chirurgical Journal*, March, 1901.

A case in which the sinuses were probably thrombosed. The jugular vein was not ligatured, and, though recovery ensued, pyemic complications developed, which the author believes might have been prevented by ligature of the vein. While stating reasons for avoiding the more extended operation where unnecessary, he reports this case to show that omission to ligature may be hazardous treatment in sinus thrombosis.

If the jugular vein itself has become infected, and contains disintegrating thrombus, the wisdom of applying a ligature below the thrombus admits of no question. But the fact that many cases of sinus-thrombosis have recovered satisfactorily without ligature of the vein raises the practical question: Are there any signs or symptoms by which the surgeon called upon to treat these cases can decide, either when operating or before, whether it is safe or unsafe to leave the jugular vein untouched? From the pathological point of view it is obvious that nothing will be gained by ligaturing the jugular—firstly, if every particle of septic thrombotic material likely to pass from the sinus to the vein has been or can be removed through an opening made into the sinus itself; and, secondly, if the lumen of the jugular vein is blocked by firm clots, which can act like a ligature, if that clot can be saved from disintegration by removing the septic material lying in the sinus above it as just described.

This question of the advisability of tying the jugular as a routine step in the treatment of sigmoid-sinus thrombosis can only be settled by a careful study of recorded cases.

In the author's opinion, a study of the records quoted goes far to show that ligature of the jugular vein in sigmoid-sinus thrombosis need not, in many cases, be regarded as an essential part of the operation, and that it will usually be better practice not to ligate the vein in cases operated upon before embolic abscesses have formed, if a free flow of blood can be established from both ends of the sinus by removal of the thrombi, or if firm, healthy-looking clot is found plugging the sinus at the lower end, or at both ends.

P. WATSON WILLIAMS.

**Papilloma of the Larynx in Children and their Treatment—**

MONSELLES—*Archiv. Ital. di Otologia*, first, 1901.

The author thinks the pathogeny of the affection may be determined by some micro-organism, at present unknown. For the extirpation of this papilloma, he advised and used with success, a special abrasor, consisting of a small metallic cylinder. It has on one side an oval hole with sharp borders. This cylinder is mounted on a staff so that it can be inserted in the larynx after the manner of intubation. At the opportune moment the papilloma is pulled off by the sharp border of the oval hole, and fall in the interior of the cylinder.

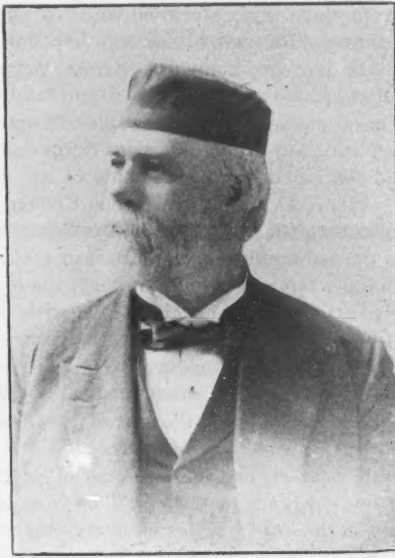


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## OBITUARY.

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Dr. Thomas Frazier Rumbold, of St. Louis, died May 23, 1901. Dr. Rumbold was a direct descendant of Capt. Richard Rumbold of the Ryehouse, near London, England. In 1834 his father emigrated to Canada, coming to the United States in 1837.



The subject of this sketch was educated in the private schools of Davenport, Iowa, and like most distinguished Americans, his early years were years of deprivation and endeavor. In the years from 1846 to 1848 he taught school for the pitiful sum of \$12.00 per month, and with the hardihood of his Scotch ancestry man-

aged from this small allowance to maintain himself and pay his tuition in the Iowa College. While a student here he began reading medicine under the direction of Dr. Jas. White, and a little later commenced practice with the idea of acquiring his diploma later. By 1859 he had saved enough to enable him to enter the Jefferson Medical College of Philadelphia, where he received the degree of M. D. in 1862. Immediately after graduation the young physician enlisted in the medical service of the United States Army, and served at the battle of Pittsburgh Landing, Tenn. He was in the government service at the United States General Hospital and the Jefferson Barracks, St. Louis, through the succeeding years of the war.

Dr. Rumbold was the first practitioner in the United States to confine himself to the practice of the ear, nose and throat. His special interest in them was coincident with his early studies of medicine and continued through his college life, during which by the courtesy of the late Dr. Samuel D. Gross, he was accorded the privilege of the daily examination of patients afflicted with diseases of the nasal passages, in the Blockley Hospital. In 1865 he resigned the position of Acting Assistant Surgeon of the United States Army and continued his special study of the ear, nose and throat with Drs. Henry D. Noyes and Louis Elsberg in the New York Ophthalmic Hospital.

Dr. Rumbold opened an office in St. Louis in 1866, limiting his practice to rhinology, laryngology and otology, where he practiced continuously until stricken by mortal disease, with the exception of a few years from 1890, when he had a temporary residence in San Francisco for the benefit of his health.

Dr. Rumbold was a member of many medical societies and had held many honorable positions in the gift of the medical profession as a teacher. He wrote many papers in the course of his long and honorable career, and for a number of years was editor and proprietor of the *St. Louis Medical and Surgical Journal*. Within the last year he read a series of interesting papers before the St. Louis Medical Society entitled, "Fifty Years of the Practice of Rhinology."

The principles of soothing applications to inflamed membranes which he evolved in rhino-laryngology will stand the test of time, and if his life work were written, in this alone his name would deserve to live. He was a mechanical genius, and with this idea in mind, he devised his spray producers for the treatment of the entire surface of the nasal passages and throat with warm, medi-

cated vaseline, which applications, as applied by him, are not only the least irritant and most thorough to the Schneiderian membrane, but are more abiding and protective than any heretofore developed.

In 1880 Dr. Rumbold published a work on "Hygienic and Sanative Measures for Chronic Catarrhal Inflammation of the Nose, Throat and Ear." In 1885, a work on Pruritic Rhinitis (Hay Fever); Its Medical and Surgical Treatment." In 1881, a work on the "Hygienic Treatment of Nasal Catarrh." Among the many instruments which he devised, we may mention the Hinged Pharyngeal Mirror, the Tongue Depressor with three blades, the Flexible Eustachian Catheter and the Spray Controller.

Dr. Rumbold left six children, all of more than ordinary talent, and one of which (Dr. Frank M. Rumbold) with its present editor, was the joint founder of THE LARYNGOSCOPE.

Upon a marble slab, over the mortal remains of a distinguished worker, in the crypt of St. Paul's Cathedral, London, is a short line fitting to be carved over the last resting place of him whom we mourn—for Thomas Frazier Rumbold.

"DIED AT HIS WORK."

F. C. E.

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## BOOK REVIEWS.

**Progressive Medicine, Vol. I, March, 1901.** A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 460 pages, with 81 engravings and one full-page plate. Lea Brothers & Co., Philadelphia and New York. Issued quarterly. Price, \$10.00 per year.

Volume I of the 1901 series of "Progressive Medicine" contains much information of value to the laryngologist and otologist. In the introductory monograph by Dr. J. C. DaCosta on "Goitre and Exophthalmic Goitre," the literature on the subject is considered succinctly. In the same chapter are several interesting descriptions of operative technique used in reconstructing the upper lip after the removal of cancer and lupus, and plastic operations on the nose subsequent to fractures of the nasal bones. Rhino-plastic operations are interestingly considered and also the latest technique of operations for cleft-palate.

The chapter on diphtheria again brings the question of antitoxin to notice viewed in the light of several years' experience. In the therapy of whooping cough a number of new suggestions are presented.

We are again pleased to note a separate chapter on laryngology, rhinology and otology; that on laryngology and rhinology is by Dr. A. Logan Turner, of Edinburgh, and that of otology by Dr. R. L. Randolph, of Baltimore. Dr. Turner brings the literature of tuberculosis of the nose and throat up-to-date. The bacteriology and inflammation of the nasal accessory sinuses receives much attention, as does also lavage of the maxillary sinus. The treatment of chronic suppuration of the frontal sinus is a continuation of the chapters on this subject in "Progressive Medicine," Volume I, 1900.

Malignant diseases of the larynx is a well written chapter by the same author.

The section on otology contains reports of numerous rare clinical cases and a consideration of the middle ear. Stress is laid on local blood-letting and cold applications in the treatment of acute inflammations. The technique of vibratory massage is again noticed. The author points to the conservatism now prevalent in the surgical treatment of chronic, non-suppurative catarrhal otitis.

The recent contribution of Dr. A. A. Gray, of Glasgow, of aniline as a penetrative reagent to be combined with alcohol and cocaine as a local anæsthesia in the ear is mentioned in extenso.

The education of the deaf-mute by the system suggested by Urbantschitsch still awakens active interest and forms the concluding chapter of this section.

M. A. G.

**Beitraege zu den Funktionsuntersuchungen an Taubstummten in Danemark.** Monograph by E. SCHMIEGELOW, Kopenhagen. Paper bound. Pages, 113; illustrations, thirteen. Publishers, Det Nordiske Forlag, Ernst Bojesen, Kopenhagen; August Hirschwald, Berlin.

In this monograph the author contributes some interesting data concerning the question of deaf-mutism in Scandinavia. The author also comments on the advantages of dividing the pupils into classes according to the degree of deafness. He urges the formation of separate classes where only tone perception is apparent in order that these pupils may receive the advantage of special instruction. This monograph was originally prepared in the Danish language and translated into the German.

M. A. G.

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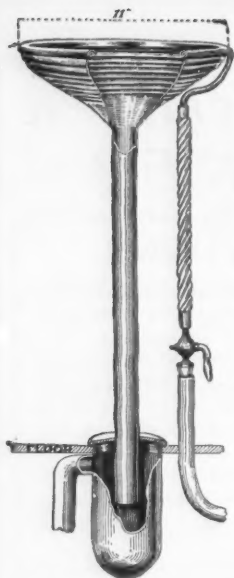
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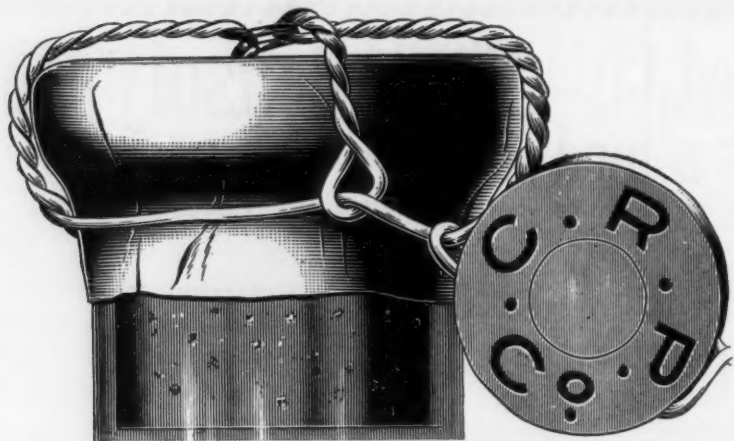
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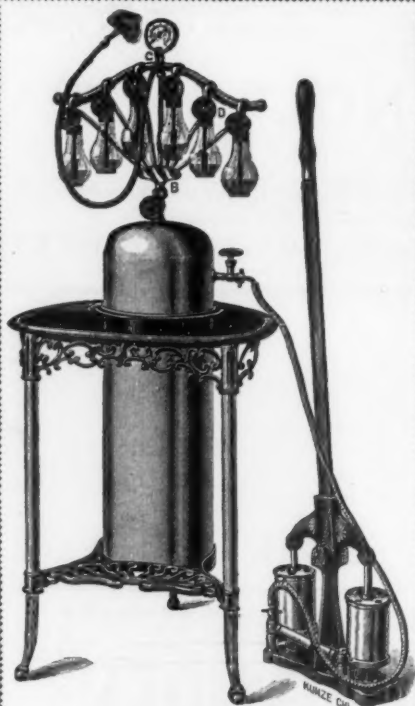
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## WESTERN OPHTHALMOLOGIC AND OTO-LARYNGOLOGIC ASSOCIATION.

The next annual meeting of the Western Ophthalmologic and Oto-Laryngologic Association will be held in Cincinnati, **April 11 and 12, 1901.**

The Program and Arrangement Committees are putting forth every effort to make this one of the most successful and interesting meetings in the history of the society.

The program, consisting of carefully selected papers pertaining to ophthalmology and oto-laryngology, will be rendered by some of the representative men in the West.

The association is rapidly growing in popularity, and attendance which will surpass that of any previous year is looked forward to. The preliminary program is announced:

### PROGRAM.

*Thursday, April 11, Morning Session (General), 10 A. M.*

Call to order by the Chairman of the Committee of Arrangements, C. R. Holmes, M.D.

Remarks by the President, M. A. Goldstein, M.D.

Announcements by the Committee of Arrangements.

Roll call.

Reports of Officers and Committees.

### PAPERS.

1. Hemophilia in Relation to the Surgery of the Ear, Nose and Throat. W. Scheppegrell, M.D., New Orleans, La.

2. Optic Neuritis Resulting from Intra-Nasal Diseases. Derrick T. Vail, M.D., Cincinnati, Ohio.

3. Paralysis of Accommodation Following Diphtheria. J. H. Johnson, M.D., Kansas City, Mo.

*Thursday, April 11, Afternoon Session, 2:30 P. M.*

### OTO-LARYNGOLOGIC SECTION.

1. A Means of Reducing an Overgrowth of the Inter-Maxillary Frenum, Permitting the Retention of Two Central Incisors in Close Apposition. H. W. Loeb, M.D., St. Louis, Mo.

2. Adenoids; Complications and Sequelæ. H. Stow Garlick, M.D., Cincinnati, Ohio.

3. Subject to be announced. Edwin Pynchon, M.D., Chicago, Ill.

4. A New Technique for the Reduction of Turbinal Hypertrophies. M. A. Goldstein, M.D., St. Louis, Mo.

5. Treatment of Some Purulent Conditions of the Antrum of Highmore through the Natural Opening. Norval H. Pierce, M.D., Chicago, Ill.

6. Some of the Bacteria Found in the Nose, and their Relation to Disease. Samuel Iglaur, M.D., Cincinnati, Ohio.

### OPHTHALMOLOGIC SECTION.

1. Therapeutic Value of Adrenalin. Dudley S. Reynolds, M.D., Louisville, Ky. Discussion opened by W. L. Dayton, M.D., Lincoln, Neb.

2. The Value of Methyl Blue as a Local Application. M. F. Coomes, M.D., Kansas City, Mo.

3. Affections of the Lachrymal Apparatus. Flavell B. Tiffany, M.D., Kansas City, Mo.

4. Obstruction of the Lachrymal Duct and Its Treatment. John J. Kyle, M.D., Indianapolis, Ind.

5. Can the Conjunctival Sac be Rendered Aseptic with Safety to the Eye? B. E. Fryer, M.D., Kansas City, Mo.

6. Drainage of the Eye as a Basis of Treatment. Frances Dickinson, M.D., Chicago, Ill.

7. Dacryostenosis with Abscess. J. F. Reynolds, M.D., Mt. Sterling, Ky.

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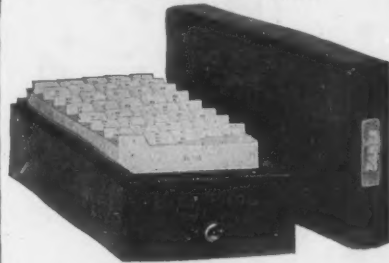
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## WESTERN OPHTHALMOLOGIC AND OTO-LARYNGOLOGIC ASSOCIATION.

### PROGRAM CONTINUED.

*Friday, April 12, Morning Session, 10 A. M.*

#### OTO-LARYNGOLOGIC SECTION.

1. Spongifying of the Bony Capsule--Especially the Differential Diagnosis from Total Disease. J. Hollinger, M.D., Chicago, Ill. Discussion: *a.* C. R. Holmes, M.D.; *b.* O. J. Stein, M.D.
2. Auscultation of the Mastoid. A. H. Andrews, M.D., Chicago, Ill. Discussion: Wm. L. Ballenger, M.D.
3. The Stapedius is a Muscle of Accommodation. Thos. F. Rumbold, M.D., St. Louis, Mo. Discussion: Norval H. Pierce, M.D.
4. A Case of Otic Cerebellar Abscess, Sinus Thrombosis, and Commencing Cervical Abscess; Recovery. C. Barck, M.D., St. Louis, Mo.
5. Some Points in Operating for Mastoiditis. Geo. F. Keiper, M.D., Lafayette, Ind.

#### OPHTHALMOLOGIC SECTION.

1. The Relation of Chalazia, Internal Stytes, and Tarsoadenitis. N. F. Weyman, M.D., St. Joseph, Mo.
2. Hysterical Disorders of the Eye. F. A. Phillips, M.D., Chicago, Ill.
3. Blennorrhoea Neonatorum. Adolf Alt, M.D., St. Louis, Mo.
4. A Contribution to Our Knowledge of Cortical Blindness. C. Barck, M.D., St. Louis, Mo.
5. Calcarious Infiltration of the Cornea. Oscar Dodd, M.D., Chicago, Ill. Discussion opened by S. C. Ayres, M.D.
6. Wounds of the Ciliary Body and Their Treatment. J. S. Mott, M.D., Kansas City, Mo.

*Friday, April 12, Afternoon Session (General), 2:30 P. M.*

#### JOINT SESSION.

1. Report of a Case of Vicarious Menstruation of the Retina. J. G. Huizinga, M.D., Chicago, Ill.
2. Atrophic Laryngitis. B. Tauber, M.D., Cincinnati, Ohio.
3. The Cause and Treatment of Laryngeal Edema. Hal Foster, M.D., Kansas City, Mo.

#### EXECUTIVE SESSION.

Report of Committee on Membership.  
Election of New Members.  
Report of Nominating Committee.  
Election of Officers, 1901-1902.  
Adjournment.

#### ANATOMO-PATHOLOGIC MUSEUM.

The museum will be in charge of Dr. John W. Murphy. The Groton, Cincinnati.

Members are requested to send or bring interesting anatomical, histological and pathological specimens, with a written (preferably typewritten) description of the same. A microscope will be provided for the examination of slides. New instruments may also be exhibited. A catalogue of the exhibit will be printed in the report of the annual proceedings so that the written description of specimens will be permanently preserved for future reference. Members are urgently requested to either send or bring specimens for this exhibit and are assured that every effort will be made to preserve them from damage. Interesting drawings and photographs may also be exhibited.

Dr. C. R. Holmes and Dr. J. W. Murphy will exhibit sections of the head.

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